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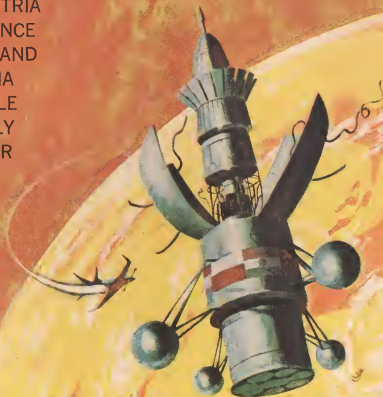
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SCIENCE-FICTION

Vol. 1 No. 2 • June, 1968

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Printed in the U.S.A. by the Guinn Company, New York, New York 10014.

THE BALANCE OF IDEAS

There has been a good deal of talk and concern lately about our balance of gold. Too much has been going out without a corresponding inflow, which everyone agrees is a bad situation.

No one seems to have become equally perturbed over any lack of balance in the flow of ideas, except for a few scientists in some sensitive fields. That may be because ideas are harder to weigh than gold; or it may reflect the fact that many politicians, along with a lot of other people, are used to working with a depleted reserve of ideas.

Nevertheless, there is a barrier which no government regulations can change that lets ideas flow away from us more easily than toward us. That barrier is the English language, whose very excellence as a tool for ideas works against us. Every other language has a large educated class who can read and translate English; but those who learn English first seldom bother to master any other language.

As a result, our stories are sent to large numbers of fans and translators all over the world, while our own authors and fans seldom get even a hint of the work being done in our field by others. We're in serious danger of becoming the most provincial science-fiction readers — and writers — on earth.

Of course, it's easy to fall back on

the provincial assurance that we are leaders in science fiction and that only our ideas are worth having, so that we need no influx of ideas from outside. Our history doesn't seem to bear that out, however.

The basic ideas that delighted us for decades came from all over. H. G. Wells gave us time travel in English; Jules Verne took us into space in French; better ships came from several writers in German; and Karel Capek gave us the word *robot* from the Czechoslovakian, as well as one of the first novels of atomic doom. The early issues of the first science-fiction magazines were filled with translations from many languages. Our wellsprings are universal, which probably accounts for our almost universal appeal.

Of course, the great ideas will cross any barrier, in time. If a man writes a great break-through novel of science fiction in High Trollish, we'll get a translation of it — eventually. But it will probably derive from some smaller story where it was only the germ of the final idea — and our writers and readers will have missed that unless it was lucky enough to be translated first.

One never knows. Who could have guessed that a word in a play with the odd title of *R. U. R.* would lead to the Asenion laws of robotics?

— LESTER DEL REY

We the undersigned believe the United States must remain in Vietnam to fulfill its responsibilities to the people of that country.

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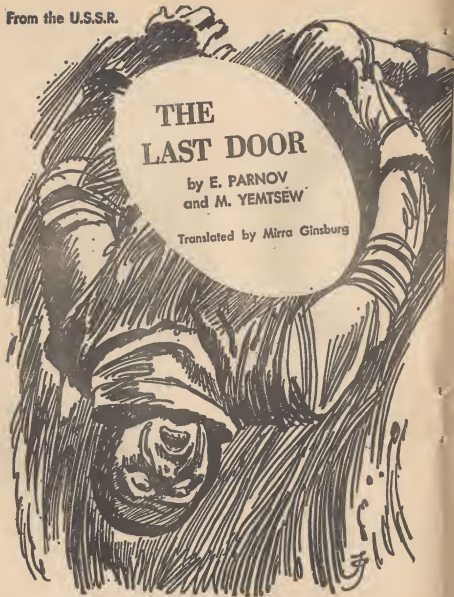
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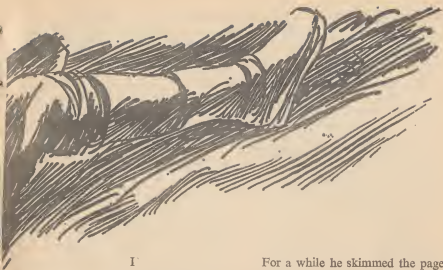
From the U.S.S.R.

THE LAST DOOR

by E. PARNOV
and M. YEMTSEW

Translated by Mirra Ginsburg





I

At night there was a sudden down-pour, which went on and on. Lightning tore dazzling gashes in the black sky, and it seemed to Yegorov that sprays of molten steel would burst out of them at any moment. Cold, heavy hail hammered at the windows like the hard beaks of a thousand birds. The water had no time to run down the glass and jelled in muddy patterns. In the lilac flashes, Yegorov caught momentary glimpses of swirling fog interwoven with thick ropes of rain and the dim glints of huge puddles. Their reddish, pock-marked surface was reminiscent of cooled lava.

He shook his head and left the window.

"Such a nuisance," he grumbled, lying down on the hard hotel bed.

For a while he skimmed the pages of a dog-eared, thick adventure novel, wrinkling his nose squeamishly at the grease and wine stains on the paper. When he came to a missing page, he threw the book away and returned to the window. The lightning was still plucking out of the night sharp images of water bubbling on the pane and the shiny black river of asphalt below.

Yegorov fell asleep before the rain stopped. When he awakened, it was late morning. Bright glints of sunshine danced on the walls and ceilings, reflecting endlessly from all the lacquered, polished and metal objects in the room.

Yegorov stretched, jumped out of bed and walked with springy, elastic steps over the pleasantly cool floor. He felt fresh and energetic and full of causeless joy. It was as though last

From a forthcoming collection of modern Soviet science fiction to be published
to be published by S. G. Phillips.

night's rain had washed away all his fatigue, his recent disappointments and many of the cares that had beset him of late.

He wanted to do something at once, to plunge into activity. In such a mood, he thought, he would have had no difficulty in putting across his plan for exploring the Acquan Plateau and even organizing the work out there. Unfortunately, there was no longer any need to break down opposition to his research plans or to organize anything. His plans had been rejected a month ago as unrealistic, and no one seemed to have faith in his organizing abilities. And, generally, Yegorov was on vacation and was to spend the week resting, not working.

He expended his overflow of energy on giving his teeth a thorough brushing and gave vent to his jolly mood in the popular song, *I Am Writing to You on the Moon*. At the first sound of his voice the door of his hotel room flew open, and the clerk on duty came in. She inquired who was calling for help and why the bell had not been used to this end. The blushing Yegorov began to deny everything, but the woman persisted. She was sure she had heard a heart-rending cry, which ended in gurgling sounds as of someone dying. Yegorov tried to explain that those, alas, were the limits of his vocal endowments. The woman stared at him suspiciously, and it was obvious that she did not believe a word he said. She glanced under the bed and into the open wall closet. Perhaps she was looking for a corpse or a gagged and

bound victim of violence. At any rate, so it seemed to Yegorov. With considerable difficulty, he managed to escort the detective in a skirt from his room.

At the station, Yegorov's mood was subjected to yet another test.

"The helicopter will start only after twelve, and the auto-plane . . ." The cashier broke off for a moment. "That's all."

"What do you mean, 'that's all'?" Yegorov asked irritably, examining the totally bald head of this relatively young man.

The cashier raised his reddish eyebrows. A glint of mockery flashed through the green eyes.

"I mean exactly what I say — that's all," he said, bending his head to the side. "All the tickets are sold, all the seats taken, and there is nothing left for you. Wait, there will be a helicopter after twelve to pick up latecomers."

"I have waited here since last night."

"You're not the only one. Others are waiting too."

"I have a measly forty kilometers —"

"We have no long-distance service. There's no one here who has to go more than a hundred kilometers."

Yegorov felt an overwhelming desire to spit at the shiny bald head. He swallowed his saliva and left the window, clenching his teeth. His mood was spoiled.

He stared gloomily at the other passengers. The bright sun that came in through the glass walls cast a friendly light upon the anxious faces of the men, wind- and sun-burnt,

with large, strong hands, upon the dark-browed women with high cheekbones, in colored kerchiefs, and the children playing at the feet of their parents. The low, melodic talk which filled the hall sang out with every intonation of musical Ukrainian speech. Yegorov sat down and began to think. He could not lose a moment longer, and he had to sit and wait for the damned helicopter.

There was a movement among the crowd. It was as though an electric current ran across the room, making everyone turn his head in the same direction. The flow of melodious phrases stopped; the men and women stared at a figure that appeared in the transparent revolving door. The children alone retained their former interests in attaining their numerous ends and paid attention to nothing else.

Yegorov also glanced at the door and saw a strange man. His first impression was indeterminate, but anxiety and a sense of danger swept over him.

The man was devilishly handsome. His beauty was like a challenge or the blow of a whip. Everything about him was somehow complete, perfect, and at the same time incredibly extravagant.

Beauty is the highest harmony, a scale with many arms carefully balanced by nature. Originality is the product of an apt deviation from equilibrium. The stranger possessed precisely that milligram of ugliness that made his beauty a thing of genius.

The man was probably accustomed

to being the center of all eyes. He went to the ticket window as though there were no one else in the waiting room. He glanced into the opening where the naked crown of the cashier's head was floating and asked with a slight foreign accent:

"They just called you about me?"

The bald crown bobbed like a float on a windy day when the fish bite poorly and endless ripples run over the leaden surface of the water. Yegorov could see only a bony freckled hand with reddish hair where the tight cuff met the wrist. The hand rose obsequiously and with a soft movement deposited tickets on the shelf.

The man nodded, slipped the tickets into his pocket, and walked to the door. The cashier rose in his seat and called after him:

"Your auto-plane is in the third garage! On the right, as you go out."

The stranger nodded again without turning.

Yegorov went over to the window.

"So you had a free auto-plane?" he asked with deliberate calm.

The red-browed cashier continued to scribble something on his sheets, then he slowly raised his head. He looked at Yegorov with puzzled, astonished eyes. Of course, he did not recognize him.

"What auto-plane?" he asked in a weak, tired voice.

"The one you have just given to this foreigner."

"A-a-ah," the cashier drawled, and returned to his bills.

Yegorov felt the bile burst from his liver and, skipping over the stones in his gall bladder, rise to his head, blur-

ring his field of vision with a dense brown fog.

"I am talking to you!" he banged his fist on the ledge.

The bills and receipts impaled on shiny bureaucratic spikes, the paste jar, the inkstand made of moonstone jumped in unison and, clicking with fright, dropped back onto the desk. The paste-jar turned over, and a puddle of transparent yellowish paste crept out of it. The cashier turned pale and jumped. "You'll answer for it!" He pressed a button.

II

For a long time after that Yegorov had to wave his arms, shout, defend himself, explain himself, exhort, appeal, threaten and flatter until at last, by nine o'clock, he set out in the station master's car. Instead of a speedy, powerful auto-plane, he had to get into the antediluvian car brought by the whim of fate into the barn of the local transportation chief.

Mentally establishing the lines of genetic kinship between the station and its chief, on the one hand, and animals, mainly of the canine species, on the other, Yegorov calmed down and turned his eyes to the surrounding world. And it was magnificent. The blue sky high overhead, alive with wisps of semi-transparent clouds, radiated warmth and light. The wheat, still green and fresh, sparkled with dew. A fragrance of healthy, joyous life was spread over the fields. The cool wind ruffled Yegorov's hair. The steppe intoxicated him like a draught of pepper-brandy after a long hunting trip out in the cold.

"I've been away a long time," he whispered, moved at the sight of the familiar fields and the black ribbons of roads looping around dense stands of trees.

"Musikovka?" asked the driver.

"Uh-um."

"To visit Nechiporenko?"

Yegorov looked at the dark and merry young man, with the strange name of Renik Reinholds.

"Yes. How did you know?"

"What's there to know? He has lots of visitors nowadays Do you know, will he fly back soon?"

"He will. Give a man a chance to rest. He's just come home."

The car which had rolled easily along the highway slowed down.

"What is it?" asked Yegorov.

"We have to get off the highway here. The turn to Musikovka."

"Well, what about it? Turn off."

"Our roads, you know, God help us! In dry weather it's not too bad, but after such a rain"

The young man did not finish his sentence and turned right. The car took the sharp curve under the bridge and leaped out onto the black country road. Yegorov looked ahead with anxiety. He was familiar with the effects of rain in the black earth regions.

The road was deeply rutted. The grooves were as deep as ditches. The ground under the wheels was giving way increasingly until at last the car sank up to the chassis, helplessly churning up black lumps of mud with its turning wheels.

"That's it," said Renik and stopped the motor.

They climbed out, and Yegorov

immediately sank up to his ankles into thick black mud. Cursing, he pulled his foot out of the sticky mass. His light summer shoes were covered with a heavy layer of tar-like clinging mud. It was as though he had put on a pair of clumsy felt boots. Now he felt nothing underfoot except this quavering and slippery slime. He was a little frightened: what if the earth should slowly give way and suck him into a deep black quagmire? While he was struggling with the forces of adhesion, Renik skillfully cleared the way with a shovel.

They moved on. Yegorov swore in an undertone, scraping off the fertile mud from his soles.

They turned into another road, leading directly to Musikovka. Here there were no pits but the entire upper stratum of soil had turned into a kind of liquid oil. The car skidded every few seconds. The motor roared, and black smoke poured from the exhaust pipes. Renik climbed out, felt his radiator and waved his hand in despair.

"We'll stop a while," he said. "Let it cool off."

Yegorov leaned against the baggage compartment and blew puffs of cigarette smoke at the mocking clear sky.

"What the devil." Renik's voice spoke up near him. "We've conquered the moon, we've conquered Mars, we've landed on Venus, but our roads are as impossible as ever."

"Why?" said Yegorov. "We have excellent highways — we've just been driving along one of them."

"But that's a highway. And getting

to Musikovka is still harder than getting to Mars."

"The whole trouble, my dear fellow," Yegorov spoke didactically, "is that we are living in a transitional period. Auto-planes have not yet come into general use, and cars are already obsolete. When the mass production of auto-planes gets going, roads as such will no longer be needed. The only ones left will be super-highways, and all the rest — like this one will be plowed under and put to crops. We'll have only handkerchief-sized landing spots for the auto-planes. And even that purely for tradition's sake, since an auto-plane can land anywhere — on solid ground, on water, in the woods, in swamps."

"Who knows when and if —" Renik drawled doubtfully and returned to the driver's seat. For a long time he puttered with the starter, shifted gears, and finally announced, "Come on, let us try across the field."

The car turned off the road and into a field covered with the reddish stubble of last year's crop. Here they encountered sheer wonders. The car leaned steeply either to the right or to the left, it was carried with astonishing ease in the most unexpected directions. The field sloped a little, and the car slithered over it like a hockey puck on ice. Renik, who had long since cut off the motor, was bearing down with all his strength upon the brakes. He stared with horror at the deep gully which cut across the field and was steadily coming nearer. A hundred meters or so from the edge, the car suddenly swerved, turned a full circle and stopped.

"To hell with it," said Renik, mopping his pale face. "I'll wait till evening. Maybe it will dry out a bit by then."

They got out of the car.

"Musikovka is over there," Renik said, pointing across the gully.

One- and two-story houses nested on the slopes of a green, sunlit hill. Cherry trees and poplars cast delicate violet shadows on their whitewashed walls.

Yegorov said good-by to Renik and walked along the gully toward the wooden bridge that led to the Musikovka road. His feet gradually accumulated an ever thickening coat of mud, and soon he was waddling from side to side as though on stilts and skidding as efficiently as the car. At last he swore, took off his shoes, rolled up his trousers, and, clutching his muddy shoes in one hand and the teflon briefcase with his papers in the other, he merrily squished away over the field. The black earth mud squeezed up between his toes like fat black sausages.

III

"Is Vasily home?" he asked half an hour later, halting at a house which displayed a waving red flag.

A middle-aged Ukrainian woman glanced sharply at the guest.

"And who may you be?"

"Tell him Yegorov. Sasha Yegorov."

The woman shouted something through the window, and a moment later a tall young man in a T shirt, light slacks and tennis shoes on bare

feet ran out to the porch. A black lock of hair curled up gaily over his high forehead. His brown eyes gleamed in warm welcome.

"Sashok! Hello! Come in, come in. What a sight you are! Had a taste of our black earth?"

They embraced.

"Greetings, Martian, greetings!" Yegorov said, smiling. "Couldn't stay away, could you? Ran off home?"

"I couldn't, don't you know? I stopped off at the Academy straight from the cosmodrome, turned in the papers and — fare thee well! They wanted to shove me off to some sanatorium, but I talked them out of it. I told them I had all I needed home — a sanatorium, a prophylactorium and what have you."

"And of course, the maiden with a brow fair as the moon?"

"In short, a hundred per cent multicomponent ecological system, assuring the astronaut of the highest moral and physical well-being. Come in. Come in, please."

While Yegorov was splashing under the shower, Vasily went in and out a hundred times, now bringing a towel, now the special "Neptune" soap issued only to astronauts, now simply to say something jolly and slap Yegorov's lean back.

"In my opinion," said Yegorov, watching the black rivulets running from his feet, "Ukrainian mud is insufficiently reflected in the works of our classics."

"And our scientists," completed Vasily.

"Exactly. After all, they've sung about the Ukrainian night, the wide and mighty Dnieper, the Ukrainian

girls and even your sycamores. How come there are no voluminous studies or inspired poems about the dark powers that come into their own hereabouts after it rains?"

"In fact, there aren't even enough competent scientific dissertations on this question. Just think what a fertile subject for a dozen candidates' theses and two or three doctoral dissertations is going to waste!"

"I'll say," Yegorov laughed. "Mud can be classified according to the date of origin: antique mud . . ."

"And according to the traction energy required to pull one's foot out of it."

"Light mud — one kilogram; heavy — half a ton . . ."

"The figures cited by the author of the thesis to characterize heavy mud seem to be somewhat exaggerated. Our experiments have given lower results, but this, of course, in no way reflects on the merits of the work, and the author is unquestionably —" Vasily droned on, bending over the imaginary pages of the official opponent's comments on the imaginary theme.

"— unquestionably deserves to be granted the degree of Candidate of Muddy Science!" Yegorov completed.

Vasily solemnly pressed his hand.

"You will live in the attic, together with me, all right?" he asked. "I'd give you a separate room, but I have another guest. He flew in today."

"Who?"

"He was in the Disney group. We worked together on Mars."

"Oh! And where is he from?"

"South America."

Yegorov raised his eyebrows. "What the devil does he want with you?"

"I'll tell you later," Vasily answered. "Come, I'll introduce you to the family."

The family turned out to consist of two persons: Vasily's mother, the middle-aged Ukrainian woman with the suspicious glance, and his sister, a tall young woman with mischievous dark eyes, very much like her brother. She pressed Yegorov's hand and said, smiling:

"Vasya has spoken a lot about you."

"Really? What did he say?" Yegorov asked flirtatiously.

"Oh, well —" The girl squinted slyly.

"Oxana, don't bother Sasha. You'd better run over to the store," Vasily interrupted her.

"And where is your American?" asked Yegorov when they climbed the stairs to Vasily's room.

"Sleeping," the astronaut answered, stretching. "The minute he came, he went to sleep."

Yegorov looked enviously at Vasily. An athlete's strength and invincible health were expressed in every movement of his magnificent body.

"Shall we talk?"

"After breakfast. I must help mother in the house first. It's hard for her now, alone with Oxana, without a man around."

"Go on. And call me if you need me."

Vasily went downstairs. Alone, Yegorov looked about him. It was a strange room. Judging from the

furniture and the various objects it contained, it somehow had boldly combined within it elements of a laboratory, library, cosmic museum, living room and bedroom. The latter, however, was represented only by a narrow bed covered with a plain woolen blanket. Over the bed hung four photographs of Vasily: one, as a schoolboy, a little, mop-headed, pugnacious brat, staring intently into the camera, and three space shots, all of them made on the Moon. "Strange, none from Mars. Yet he was there five times," thought Yegorov.

He stroked the expensive bindings of books on cosmonautics which occupied an entire wall, snapped his finger on the gray moonstone that looked like the petrified crest of a wave, smiled at the model of the navigation panel of a space ship. He knew this piece very well. Vasily had built it when they were both still students at the Institute of Cosmic Geology.

Then he walked over to the wide glass door leading to the balcony. He pushed the door and stepped out onto an enormous terrace, open on three sides and protected from direct sun rays above by strips of silk awning.

Yegorov saw the village — the fresh, dark green trees, the pleasant little houses with whitewashed walls, the towers with auto-planes, gleaming in the sun with their yellow and scarlet sides. From somewhere came the crowing of a rooster, the lowing of a cow.

A light blue haze hung over Muskovka, promising a hot day.

Yegorov inhaled deeply the heady air, holding the fragrance of thousands of grasses and flowers. The bright light and glitter made him slightly dizzy. Yegorov thought that in Moscow he would now be sitting in a smoke-filled stuffy room, feeding "Big Beta" endless columns of figures drawn from the data of geological prospecting expeditions to the Moon and Mars. And waiting nervously while the clever machine was preparing the answer that would either confirm or refute his hypothesis, his ability to forecast. Then would come the evening. Swimming in the pool or sitting at the bar in the "Crater," he would try to drive out the fatigue that permeated his body and his brain cells, to relax his overtaxed nerves. And the next day, everything would start all over. The soul-draining work, the failures, miscalculations and successes which had become a kind of obligatory norm. Successes one neither enjoys, nor even notices And all this time, while his life was being spent at the console of a computer, this tender, joyous sun was shining, these sweet breezes sang, welcoming the coming day.

A noise reached his ears. Someone had entered the room. Yegorov saw the man's reflection in the glass. "Vasily!" a low voice said.

Something checked Yegorov, and he remained silent. He recognized this man on the threshold: The pretty boy who had intercepted the airplane at the station.

Yegorov saw his face clearly. It was tense and listening. Hearing no answer, the stranger cautiously stepped into the room. Or, rather, seeped

into it, so soft and noiseless was his movement. He closed the door behind him. Then he stopped in the middle of the room, searching the walls with his eyes.

"Vasily!"

Yegorov was just about to leave his hiding place when Nechiporenko came in.

"A-ah! Angelo!" he said. "Have you rested?"

"Oh! Excellently. Very."

"Good. Let's go down."

They left.

"That pretty boy," thought Yegorov, "is most unsympathetic." Yegorov decided to question Vasily about him at the first opportunity, but no such opportunity presented itself before breakfast.

Nechiporenko would appear in the door for a moment with a worried air and disappear immediately. Yegorov heard now the grating talk of the old woman, and now Oxana's fresh, ringing voice.

"Vasil, come here! Vasil! Where are you, Vasil?"

Vasily obediently tramped over the warm amber-yellow floor, at the beck and call of his family.

IV

At breakfast, there was a new guest, a moustached old man. His name was Pavich. He was self-satisfied, pompous and boastful.

"For our dear neighbor, the world famous astronaut Nechiporenko!" proclaimed Pavich, raising his glass. Drinking down, he grunted and wiped his moustache.

Then the old man expatiated in

popular terms for the benefit of all present on Vasily's services to his homeland and humanity. Vasily made faces, but did not interrupt the guest.

"That'll do, grandpa," Vasily's mother Olga Panteleyevna, finally broke in. "We read the papers too."

"That's all right, Olga, that's all right. We've got a single astronaut here for the whole region. And from our village, too! Such marvels should be celebrated."

"Well, celebrate all you want. But don't keep telling us what everybody else knows long ago."

Yegorov watched the American from the corner of his eye. Angelo Tend kept putting away one well browned roast potato after another with an air of utmost indifference. He seemed even more dazzling than that morning at the station. A delicate, peach-colored flush played on his clear white skin. The huge black eyes were severe and faintly melancholy. He obviously charmed Oxana. The girl sat without raising her eyes from the plate. When she was addressed, she would start. Where was her sly, playful smile? Yegorov noted with regret the girl's condition, and even formulated to himself some sort of a thought, beginning with the words, "You, women —"

"What's fame," Olga Panteleyevna said angrily, and her face now seemed open and sad. "The important thing is health. Take Grisha Rogozhin, Vesya's comrade . . ."

"Mother!"

"I'm not saying a thing. But I will tell you, Vasya, every time you go up into your cosmos, my heart sinks."

"Naturally — a mother's heart," Pavich pronounced, stroking the yellowed ends of his moustache and tasting the fried breām.

"If father was alive, he'd get gray hairs from Vasya's flights."

"We must, mother, we must," Vasily spoke firmly.

"I'm not saying anything. If you must, you must. But why shouldn't you take a rest? Go abroad, see the world."

"Abroad! What's that to him?" Pavich winked slyly. "He's got a firm anchor right here in Musikovka."

"A fine anchor," Olga Panteleyevna collected the dishes and angrily sailed out of the room.

"Mama, it seems, does not approve your choice, Vasily Ivanovich, eh?" Pavich burst out laughing and dipped his potato in cream.

Yegorov saw that this conversation was unpleasant for Vasily. He turned to Oxana.

"And you, Oxana, are you planning a trip to Mars?"

"Uh." The girl flushed. "I need your bugs!"

"Those bugs are cleverer than all of us," Vasily remarked.

"Even so. But they're all dead."

"Say, Vasyatka." The old man fidgeted gaily. "Instead of flying off to Mars, why not visit our own anthill?"

"Right," Olga Panteleyevna approved as she returned. "There are plenty of dead ants on earth."

Angelo Tend put down his fork.

"There is as much resemblance between a Martian and an ant as between a man and a kitten. A great civilization was developed on Mars. Mankind won't reach it in another

ten thousand years. And the Martians are not extinct."

He looked sternly at Oxana. His eyes burned with the fierce flame of some unknown dark faith.

"What then?" the girl asked timidly.

"They went away to Aiya."

Everyone was silent.

"And what's that?" Pavich asked mockingly.

"We don't know," Vasily answered for Angelo. "There is much we do not understand about the civilization of the Martians. They did not know verbal or sound communication; the logic of their thinking is qualitatively different from ours. Their evolution took very different channels. Their methods of production and the development of their society are still unclear to us."

"If we ever get to understand all the objects we found on Mars, our own society will take a great step forward," said Yegorov.

Angelo looked directly at Yegorov for the first time.

"What an eerie feeling. He seems to be sucking something out of me," thought the geologist, involuntarily dropping his eyes.

"Yes, you are very right," said Tend. There was something metallic in his voice.

"No overtones," thought Yegorov.

"Well, all that is for the Academy of Sciences," said Pavich. "But for people, there's nothing there to put your hands on, to —" The old man waved his gnarled thick fingers, unable to find words to express his thought.

"Nothing to slip inside your coat and take home?" smiled Vasily.

"Oh . . . I mean . . . that's not what I mean, lad! I mean, something like ores or metals of some kind."

"Sure, sure," Olga Panteleyevna broke in gaily. "Why, Vasya's room is full of rocks."

Vasily laughed.

"You aren't right, mama," Oxana said slyly. "What about the mirror?"

"What mirror?" asked Yegorov.

"Vasya brought me a present — a mirror from Mars."

"A lid from a Martian vanity chest," Olga Panteleyevna mocked. "Doesn't even have a hook so you might hang it up."

"But then, it doesn't get dusty," remarked Vasily.

Angelo glanced at Oxana. He seemed to see her for the first time.

"And how do you like looking in to it?" he asked.

"Very much," smiled the girl.

"And now let us drink to Mother Earth," Pavich proclaimed solemnly. "It made us, it nurtured us and it sent us off into the cosmos."

After lunch Vasily said to Yegorov: "Come, let's bring your bed upstairs."

"Where is it?"

"In Oxana's room."

He turned to his sister, who was engaged in a lively conversation with Angelo.

"Oxana, we'll take the divan from your room, all right?"

"Certainly, do," said the girl.

Oxana's room was clean and spacious. The fine aroma of wild flowers pleasantly tickled the nostrils.

"There it is, by the window," said Oxana, who had followed them in. "But I don't envy you, Sasha. It is as hard as dried clay."

"It's all right. It's nothing new to a geologist."

Suddenly Yegorov caught sight of the mirror from Mars. It stood on a chair, leaning against its back. Oxana had thrown a towel over the top of it.

"Is this it?" Yegorov asked, approaching the mirror.

The surface of the half-meter-long oval, held in a thick, golden-gray frame, reflected in its depths the intent gray eyes of the young man. The mirror did not distort a single line of his face, lending the reflection a faint bluish tinge. Yegorov felt as though he were looking through a thick layer of blue water.

Vasily, who was also looking into the mirror, said suddenly:

"Listen, sister, lend us this thing for a while, eh? We both have to shave in the morning, and I have only my little traveling mirror left."

"Take it. And, incidentally, you can use both sides. Hang it in the middle of the room and shave at the same time."

"We'll do just that."

They brought the divan upstairs, and took along the mirror.

"I'll sleep on the terrace," said Yegorov.

"Fine," Vasily agreed.

The divan was placed under the awning. As he lay on it, Yegorov could see the whole of Musikovka and the blue vistas of the steppes stretching behind it. They hung the mirror nearby, wrapping insulating tape around the golden rim and at-

taching the end of the tape to the rack on which the silk awning was stretched. The mirror swayed and glittered in the sun like a projector.

"It's heavy," remarked Yegorov, casting an appraising glance at the results of their labors.

"Very. And I wonder why. Although, of course, we don't know its composition."

"And doesn't it have some scientific value?"

"Oh, no!" Vasily waved his hand. "We've turned over nearly two thousand of them to the Academy. All the chemists of the world are struggling over their composition."

They went to Vasily's study, for the terrace was becoming too hot.

"Generally, the Martians had a strange predilection for elliptical shapes," said Nechiporenko when they sat down in the deep, cool arm-chairs. "They had tens of thousands of mirrors like this one; in their cities they served as reflectors of light. Many buildings on Mars are elliptic in shape . . ."

Vasily fell silent. The picture of the large Martian capital arose before his eyes. He shook his head.

"All right," he said. "We'll talk about me later. But you probably know everything from the reports sent in to your Institute. How do you like working there?"

V

Yegorov reflected for a moment.

"How shall I put it? I do, but not quite, as we used to say in Odessa. When I failed to make the space team after graduation because of my

liver . . . Well, but you remember. Of course, it's lucky I am a geologist, not a navigator like you. That would have been the end of me altogether. Still, I couldn't give up space. And so I went to work at the Institute. I worked. I studied the data collected on Mars and discovered the Acquan Plateau. Now I cling to the hope that we'll be able to carry out some studies there."

"Officially? Don't think of it," said Vasily. "The conditions there are terrible. Six of us excavated the large Capital. Imagine, a billion Martians lived there once upon a time. It goes about three or four hundred meters down into the ground, and its surface area has not yet been determined. For two months we crawled about those damned anthill passages without taking off our space suits. You finish your shift, and you barely crawl back to "Moscow." That's how it was, brother. You had better tell me about your plateau."

Yegorov scratched his chin. He looked up at the ceiling and began:

"You remember the excitement when elements unknown on Earth were discovered on Mars? The laboratories could not synthesize them, no matter how hard they tried. On Mars, they are concentrated in one place, and in huge quantities. I've named this place the Acquan Plateau. Later we succeeded in proving the artificial origin of these elements. And what do you think this means?"

"Well, the by-products of thermonuclear reactions . . ." Vasily said tentatively.

"Right. The by-products. This is very important. The Martians, who

built their civilization underground, utilized the surface of Mars just as we have utilized the upper layers of the atmosphere, or the ocean bottom. They threw out all sorts of refuse on the surface. Actually, those were the signs that led to the discovery of the Large Underground Capital and the entire branching system of their cities."

"So you think that under the Aequan Plateau there is a thermonuclear energy center which nobody has found as yet?"

"Quite. And if this center is found, I believe that we shall be able to draw some useful lessons from it. Especially in view of the level of Martian technology. You see?"

"It's an interesting and important question. But finding it is not all. We must learn to understand how they did things. Here we've discovered the first extra-terrestrial civilization, and what's the good of it? Oh, well . . . What do your chiefs say?"

"First, the plateau is enormous. Second, the center may turn out not to be under the plateau, but somewhere nearby. The expenses would be too high. Third, it is easier to study and export already discovered objects than to look for new ones. In short, it's something for the future."

"Yes, the situation isn't easy," Vasily said reflectively. "But it's worth looking into. But, you understand, without official say-so . . . It's a risk. Today, the instructions say that we must weigh and measure every move four times over. And even then —"

He fell silent.

"You understand, Sasha," Nechiporenko finally brought out with an effort. "Mars is a very strange planet. I know our Moon very well, I took part in the landing on Venus and had a taste of its gases, but Mars is something else. Something else altogether. Both on the Moon and on Venus you have dangerous conditions, wild storms and so on. But you aren't frightened. And on Mars it is sometimes very frightening. Do you understand?"

Yegorov looked at him with astonishment.

"Yes, yes," Vasily said with agitation. "No one writes about it, and people don't even like to talk about it, but it is so."

He was silent again.

"Mars is an amazingly calm planet. Fairly level surface. Giant cities concealed deep underground. Dead cities. Not a single Martian is left; we found only billions of strange dry shells. Perhaps the chitin coating of insects, or some sort of clothing. Before departure to Aiya, they either abandoned these shells, or . . . and here we're up against sheer guesswork. Up to now we've not been able to establish anything with certainty. The little Martians built giant constructions underground, where man feels like a Lilliputian. What ends these constructions served we can only conjecture. It is very difficult to work there, Sasha. You are forever haunted by the feeling that there is someone on this dead planet."

"Oh, quit that nonsense," Yegorov drawled.

"Oh, yes, yes, don't smile. You constantly feel as though somebody

alive were right behind you, watching and taking stock of you. And . . . waiting. I don't know anything more terrifying than this Martian sensation of expectancy. Something is constantly waiting for you there. It's a most unpleasant feeling."

"Now take our wretched efforts to decode the incomprehensible visual-tactile information that is recorded on the crystals of the Red Cupola. The only interesting conclusion we obtained is that the Martians were preparing to leave for Aiya. But what is Aiya? And how were two billion Martians transported there? It's beyond comprehension. And who will tell us why all the information refers only to the last decade of the Martian civilization? Where are their archives? Did they have libraries? In a word — a million riddles."

"I don't understand why you are so upset. The study of this complex society, so different from ours, naturally must take time."

"It's not a question of time, Sasha. I suspect that there are many things we'll never understand."

"Details, perhaps. Details are always unique and elusive. But we'll surely learn to understand the general framework."

"Not even that. I was told that the Disneys — they worked on the decoding of the crystals of the Eastern sector of the Red Cupola — have reached interesting conclusions. They say that the thinking of the Martians is, in a way, the opposite, the reverse of ours. Here on earth, motion is a property of matter; there, matter is a property of motion — its manifestation."

"I must catch you here," said Yegorov. "In order to draw **such** a conclusion about the character of Martian thinking, it is necessary to command a vast store of information. Why, this is a philosophic generalization!"

"No. The Disneys had no more information than we have. Our discoveries duplicate each other. But . . . they were luckier. You see, Sasha, I have the feeling"

He became thoughtful. Mentally, he saw the narrow deep well down which the elevator was taking the cosmic-geologists to the Large Capital; he saw the endless labyrinth of passages that could be traversed only by crawling, and the Red Cupola — the huge artificial cave with an oval ceiling, bathed in scarlet light. And once again he was gripped by the familiar feeling of anxious expectation.

"I have a feeling, Sasha," Vasily continued, "that somebody is controlling and directing our finds and our discoveries on Mars."

"Of course. The Academy of Sciences, the Council on —"

"No," Vasily interrupted him. "That's not what I mean. I am not talking about our people."

Yegorov pretended not to understand his friend. He turned away and looked out on the terrace.

"Yes," said Vasily. "Someone is directing us, putting one thing our way, hiding others for the time being. In short, controlling us. Judge for yourself — the Martians left for Aiya about five million years ago. At that time there were still no men on Earth."

Yet the Martian cities are preserved like new; everything glitters there. This is unnatural, don't you see? There is a second law of thermodynamics; there is such a thing as progressive entropy Why, the place should be in a chaotic shambles after five million years! But there is no chaos! There is strict order."

"What are you leading up to?"

Vasily silently bent closer to Yegorov. The other looked with alarm into his serious black eyes. "Has he lost his mind on Mars?" the thought flicked like a lizard through Yegorov's brain.

"They will return."

VI

Yegorov answered with a forced laugh, "That's a fine theory! The master went out for a minute and asks the guests to wait?"

"Not at all. The master simply cannot, or does not want to come back."

"Perhaps they left the solar system to go to this Aiya?"

"The devil knows what this Aiya is," Vasily said pensively. "At times I am ready to agree with Academician Perov. He investigated the armor, and he thinks that the 'migration' is nothing but a physiological process. Aiya, according to him, means death. Or, perhaps, something like the other world. By going off to Aiya, you get a chance for immortality."

"Is that your own addition to the theory?"

"No, the Disneys thought so. Incidentally, this Angelo Tend — not a bad fellow, by the way — worked

with them until our arrival. The Disneys were all ready to leave when they discovered that Tend had disappeared. They looked for him here and there, but no Angelo. A month later we found Tend in one of the galleries of the Red Cupola. He was quite well, but he could not answer a single question. He did not remember what happened to him, where he was, what he ate or drank. We had to teach him everything all over again. He had to be told who he was, where he lived, and even that there was an Earth and people. This went on for a long time. But one day he remembered . . . almost everything."

Nechiporenko's words were interrupted by a shrill sound that seemed to rend the air. The piercing whine rose to the sky like a column. The friends ran out on the balcony. Above them, a jet plane was tracing a snowy signature on the dark-blue expanse of sky.

"Looks like a new model," said Yegorov, shielding his eyes.

The sound broke off as suddenly as it began. The plane vanished in the depths of the blue.

"What a roarer!" Vasily shook his head. "By the time it reaches the ground, the sound is reduced. Can you imagine how it's for the fliers?"

"They've soundproofing."

"What was I talking about?" asked Vasily.

"Angelo."

"Oh, yes! Well, actually that was all. Since we returned from Mars, Angelo has been home, but he did not like it there. He's a Spaniard, you know, from Venezuela. Now he decided to stay with us."

"And this mirror that I brought for Oxana," continued Vasily, "is a memento from Griska Rogozhin, who died —"

"What?" Yegorov jumped up. "Grigory is dead?"

"He died, and under the most mysterious circumstances. He worked in one of the 'cells' of which there is an endless number in the Red Cupola, and our blasting team worked on the floor above. The explosion was tiny; still, there must have been a bit of a shock. There was a cry. We came running to Griska and found him with a smashed skull. His helmet was off, his face crushed. But the 'cell' itself where he was working was absolutely undamaged. There was some dust from the ceiling and a few tiny pieces of plaster as big as my nail on the floor. We never learned what it was that could have dealt him such a smashing blow. They talked about multiple amplification of the blast wave, about guided impact — but that's nonsense. And what a shame it was! Just that day Griska had made a magnificent discovery. He found a Martian's corpse. It was a most marvelous find. In five years on Mars we found nothing but empty shells. Billions of those damned lobster skins! We could only guess about the real appearance of the Martians. Griska created a sensation when he dragged in that beautifully dried-out specimen under his arm. We put it in a titanium container and sent it up. And four hours later we had to send Griska up as well. I kept the mirror."

"What mirror?" asked Yegorov.

"This one," Vasily pointed at the

mirror from Mars. It swayed lightly under the gusts of warm wind. "The dead Martian lay two steps away from it, and Grigory took down the mirror. Afterwards I took the mirror as a memento."

Yegorov glanced sadly and attentively at the gleaming oval.

"And that's another riddle," Vasily said slowly. "Why did the Martians need these mirrors, all of them the same, and in such vast numbers? There are hundreds of them in every city."

Suddenly his face changed. He rose in his seat, supporting himself on his hands. His eyes stared at the mirror.

"It does not reflect!" Vasily said.

Yegorov looked at the mirror. At first glance, it really reflected nothing. Its surface was even and opaque, of the same golden-gray color as the rim. They rushed toward it together and saw their excited faces in it.

"Phew, what idiocy," said Yegorov. "Anisotropic reflection, that's all. You got me so nervous with your stories about Mars that I'm ready to shy away from any piece of Martian rock."

"You'll do well to," Vasily said thoughtfully. "Because none of the Martians mirrors I have seen possessed such properties. Neither did . . . this one, while I kept it in my suitcase."

"It must have been affected by my arrival."

"Perhaps . . . Oh, well," said Vasily. "To sum it up, we may say that, although Mars is a dangerous planet, the Acquan Plateau should be explored."

"Ah, if they would take me into space!" Yegorov waved his fist.

"Don't worry about it," said Vasily. "Soon they'll build an anti-gravitator, and you'll be able to fly too with your bad liver. And if you don't, it's no great misfortune either. You'll go to some nice warm spa to drink mineral water."

Vasily left, and Yegorov walked up to the mirror. He imagined the thousands of Martians who had looked into that shiny surface, and it gave him an eerie feeling. The mirror indifferently reflected Yegorov's homely face, the red roofs of the houses, the field and the electric tractor that hummed far away, at the end of the wide green field. It seemed to Yegorov that the shiny material suddenly became covered with a faintly visible whitish film. He touched it and started with shock.

The surface of the mirror was soft!

He took a match and tried to scrape off the film. The match made a small shallow cut across the reflection of the green field. Yegorov was astonished. He looked at the tip of the match. Gradually, the trace of the match on the mirror began to close up and, after five minutes it disappeared.

"Interesting," Yegorov mumbled through his teeth and moved his chair nearer.

"Sasha! Sasha!" he heard Nechiporenko's loud cry.

Yegorov looked down and saw Vasily standing at the gate and waving a newspaper. His face was twisted in a painful grimace.

"Jump down here!" he cried.

Yegorov jumped onto the moist resilient earth. In the bright summer sun, Vasily's face was somber and serious.

"Read this," he said, pointing to the second column.

"It is reported," muttered Yegorov, skimming the small print, "that the bodies of the well-known cosmologists, the brothers Alfred, William, Calder and James Disney . . . were found yesterday in Boston . . . the murderer has not been found . . . mysterious death without any signs of physical violence or toxic condition . . . Experts and scientists at a loss . . . 'What does this mean?' He turned to Vasily.

"Read to the end," Nechiporenko said angrily.

"The deaths of the famous explorers of Mars are linked to the announcement they had issued several days before that an archive had been found in the Great Martian Capital, along with a key to it, which makes it possible to recreate the so-called door to Aiya. This discovery will immeasurably increase the scope of human power, according to Calder Disney's words to the *Times* correspondents.'"

They looked at one another silently.

"That's Mars for you!" the astronaut said in agitation. "It stretches its paws even to Earth. The Martians don't want to reveal their secrets."

Yegorov was silent, but the report alarmed him too. For some reason, he recalled that Angelo had just returned from America and probably knew about the Disneys' deaths.

"It may well be that one fine day

the body of Vasily Nechiporenko will be found, without traces of any physical, chemical or psychic violence," the astronaut said suddenly, examining the daffodils that edged the flowerbed before the house.

Yegorov glanced at the print of his foot at the edge of the bed and asked:

"And what does your Angelo say about it?"

"He does not know yet. I'll call him now."

Vasily went into the house and came out with Tend a moment later.

Neither agitation, nor sympathy, nor regret — nothing was reflected in Angelo's beautiful face. "He is thinking over his course of action," Yegorov thought suddenly.

"What sad news. I respected them a great deal," said Tend.

His face remained immobile. "Perhaps this is his usual expression, or, rather, total lack of any expression," thought Yegorov.

They sat down on the bench near the gate. Oxana cutting some narcissi.

"The strangest thing is that the people who worked in the Red Cupola seem to be picked for death. Rogozhin, the Disneys . . . I wonder who is next."

"I am," Angelo said suddenly.

VII

This was the first time Yegorov saw Tend smile: his eyes remained deadly calm, and the mouth twisted in a paroxysm of laughter.

"Why do you think so?" asked Vasily.

"If we are to follow your theory that the Martians are hiding their secrets from us, it must be I. The Disneys deciphered the archive, and they died. Griska found the mummy, and he died. And I . . . before I . . . suffered that lapse of memory, I also saw that room where Rogozhin had been found. I saw the mummified Martian, and the mirror, and a number of little crosses on the walls and ceiling."

"What little crosses?"

"How do I know? I came there with a flashlight, and it went out of order. Then I took the two ends of the battery and with the graphite holder made a small voltaic arc. I saw this Martian on the floor, the mirror, and flashes on the wall and ceiling that looked like crosses. At that point my arc flared up — I had probably brought the electrodes too close."

Angelo spoke somehow reluctantly, as though something were holding him back.

"And then?"

"There was a noise. A very loud noise, like the roaring of a plane at take-off. The arc went out, and the noise stopped. I got out of the room and lost my way in the passages. According to my calculations, about two hours went by. But when I met your people, Vasya, they told me that I had been gone a month and that Calder's group had already completed its work and returned to Earth."

There was a long silence. Oxana walked by and threw a flower into each man's lap.

"And your information . . . did you go to that room again?" Yegorov

asked Tend in an expectant tone. "Of course, I found no crosses there."

"Very well, my friends," said Vasily, getting up. "I must go. It will not do to pay too much attention to Martian affairs on Earth. Someone is waiting for me."

Yegorov returned to the balcony. Oxana and Angelo remained in the garden and were talking about something quietly. Yegorov lay down on the sofa and, inclining the mirror toward himself, began to watch Oxana. It seemed to him that Angelo leaned a little too intimately toward her. Yegorov threw the narcissus at the mirror. He could not understand himself why he had done it.

There was a scream behind him. The astonished Yegorov let the mirror swing back and turned. Angelo and Oxana had fallen off the bench into the flowers. They floundered clumsily, trying to get up. Yegorov jumped down from the balcony.

"The second jump in one morning, it is becoming my regular method of locomotion," he thought to himself, helping the girl and the Spaniard to rise to their feet.

"What happened?" asked Yegorov.

Oxana's face was startled and confused. There was a red gash on her cheek. Yegorov smelled a sharp unpleasant odor in the air.

"Something pushed us," Angelo said after a moment's thought. "As though a cloud had dropped. A cloud of smell. And it vanished instantly."

"No, not a cloud — it felt as if the ceiling had fallen on us, with all the plaster. And that . . . strange

smell . . . like garbage, like something putrid," said Oxana.

"You are not hurt?"

She shook her head. Yegorov looked around. He saw nothing extraordinary except the trampled flower-bed.

The smell was gradually dissipating. At first sharp and nauseating, it grew fainter and more delicate. "The concentration is decreasing," Yegorov thought. He knew that even the best perfumes smell vile in strong concentration. Inhaling the delicate, elusive fragrance, he tried to define it. "Narciss!" it suddenly dawned on him.

He glanced at the balcony. A vague guess flashed in his mind. Yegorov looked at Angelo and saw that the Spaniard was also gazing at the balcony, at the extraordinary mirror. He was struck with the expression on the young scientist's face: it was the expression of a man looking at an object of cherished and long-concealed desire.

"Isn't the mirror in your room?" Tend asked Oxana in a breaking voice.

"The mirror? What mirror? Ah, that one! I gave it to Sasha and Vasya," the girl answered casually and with slight surprise. She had also noticed Tend's agitation.

"Something is wrong here," thought Yegorov.

He was distracted by the noise at the gates.

Olga Panteleyevna and Pavich came into the yard. She wore rubber boots and a leather jacket and spoke angrily to Pavich:

"And I tell you he was drunk, you understand, drunk!"

Pavich held an old frayed briefcase with a metal lock in one hand, and a yard-long piece of wood in the other.

"But here's material evidence, Olga," Pavich said, swinging the log.

"What happened, mother?" asked Oxana, approaching them.

After running the obstacle race of numerous digressions and exclamations, Oxana and Yegorov at last managed to obtain an explanation. Olga Panteleyevna had gone with Pavich to examine the fields and discovered a deep furrow across the field of winter wheat. The broken shoots and upturned soil had led them to the tractor driver Kotzubenko, who sat near the tractor and stared in amazement at the ditch across the smooth green field. In reply to questions, he babbled incomprehensible nonsense. He insisted that a huge beam had fallen from the sky and gone across the field by itself, leaving a deep rut. The piece of wood in Pavich's hand was a fragment of the beam.

At first, Kotzubenko had said, the trench was about three meters deep. Then it began to diminish, as though closing up. The wheat straightened up and, by the time Olga Panteleyevna and Pavich had come, it was no more than a small furrow, which they had taken to be the track of the tractor. The action of the drunken tractor driver — and he was really drunk — provoked Olga Nikolayevna to violent indignation.

Yegorov wondered. Then he noticed that Angelo was no longer with them.

Opening the door to Vasily's study, Yegorov knew that he would find the Spaniard there. But there was no one in the room. Yegorov went out on the balcony. Tend was standing with his back to Yegorov, holding a slender black rod to the golden-gray frame of the mirror. Angelo's ear was bent to the other end of the rod. It looked as if the Spaniard were listening to a sick man's chest. A low hum spread in the warm spring air.

"Angelo!" Yegorov called.

Tend jumped away from the mirror, as if something had stung him. He looked into Yegorov's eyes. It was a terrifying, merciless look . . .

Oxana stepped into Vasily's room, hearing a faint moan. It came from behind the glass door of the balcony. The girl ran out and found Yegorov on the floor, behind the boxes of seedlings and flowers. She helped him to the sofa. A few minutes later Yegorov opened his eyes.

"Is he gone?"

"Who?"

Yegorov did not answer. He looked at Oxana with weary and indifferent eyes.

"What is the matter with you?" Oxana asked anxiously. "Shall I call a doctor?"

"A doctor?" asked Yegorov. "No, there is no need for a doctor. I am perfectly well. It's the sun. I have not been out in the sun so much for a long time."

He carefully studied his hands.

"Oxana, with the exception of Vasya, you have spoken to Angelo more than anyone else. What do you think of him?"

The girl blushed faintly.

"I don't know. He is handsome."

"And that's all?"

"It seems to me that he is a very cold man, and difficult to understand."

Yegorov smiled suddenly and sat down on the sofa.

"Your feelings are right, Oxana. Now, listen, Oxana, I must see Vasily at once. Where is he?"

"He has taken Valya up in his autoplane. If you had called in the morning, you needn't have trudged through the mud."

"How was I to know that Vasily has a personal plane? Does he have a telephone in it by any chance?"

"He does. But is it important enough to disturb him? They are having a difficult time as it is. Mama does not approve of Valya. It seems to her that Vasya needs a different wife."

"What kind? A Martian?"

"No, but something along that line," Oxana laughed.

Yegorov thought for a moment.

"Oxana, dear, I need Vasily most urgently. How can I call him?"

"There they are!" Oxana pointed to the horizon.

"Where? Where?" Yegorov tried to find the shiny dot over the field.

"Your eyes are strained with too much sun," remarked Oxana and, turning Yegorov by the shoulders, said: "Look in the mirror. You can see them here too. You see, this bright dot?"

"Where?"

"Oh, heavens, right here!" Oxana poked her finger into the mirror.

"Careful!" cried Yegorov, catching her hand.

But it was too late. The sunburnt finger had already touched the mirror lightly on the bright spot of the reflected autoplane. Oxana turned pale and recoiled.

"Oh!" she cried, shaking her hand. A drop of blood appeared on her finger, and the skin was slightly grazed.

"Get a car, quick!" Yegorov hurried. "Something's happened to them!"

He ran over to the balcony and jumped down. "Those narcissi are getting a beating today," he thought mechanically. "The third time!"

"Oxana!" he cried, turning to the balcony. "Cover the mirror and see that no one touches it!"

The young woman, her finger in her mouth, watched Yegorov's hurried movements with astonishment. He jumped on a motorcycle. The geologist's anxiety infected her too. She looked up at the horizon. Vasily's autoplane was not there.

When Yegorov's motorcycle, bouncing over the dried lumps of earth, drew up to the place of the accident, a car was already there. The local agronomist had seen the plane fall. He had just come out of his car and was walking across the field. Yegorov caught up with him, and they strode together.

A few moments later they stopped near the autoplane lying on the freshly plowed earth. Its radiator and the top of its transparent body were covered by strips of some dirty-yellow fabric covered with dark red spots of congealing blood. The sides and the windows of the autoplane were splashed with small red spots. Trying

to master his horror, Yegorov rushed to the machine and flung open the door.

Vasily, who was sitting at the controls, tumbled out at his feet. Together with the agronomist, he picked up the astronaut's body, which had suddenly become extraordinarily heavy, and laid him down on the black soil. Then they carried out the tall pale girl, whose blue unseeing eyes were slightly open.

The agronomist opened the astronaut's collar and laid his ear to his chest. "You were right, Vasya," thought Yegorov, staring at his friend's bluish-pale face, "Mars has long hands."

"It's beating!" the agronomist cried with relief.

He kneeled at Vasily's head and applied the rhythmic movements of artificial respiration.

Yegorov busied himself with the girl.

"But why so much blood?" The geologist strained to understand. "They don't have a single scratch." Suddenly he recalled the ruby drop on Oxana's finger and shook his head, driving away the wild, absurd idea. A faint sigh came from Valya's lips.

"Valya! Valya!" called Yegorov.

"Look!" exclaimed the agronomist.

Yegorov looked up at him and saw a brick-red face, astonished blue eyes in a network of wrinkles, and a sun-burnt hand pointing at the autoplane.

Neither drops of blood on the glass, nor the steaming puddle of blood under the autoplane were there any longer. Everything had vanished. Only a small shriveled wisp of the

fabric which had a moment ago covered the entire craft was still faintly visible on the hood.

VIII

"The devil!" cried Yegorov and ran to the autoplane. He peeled off the wisp and put it in his pocket; it was damp and cold.

Vasily opened his eyes and moaned.

"Valya!" he called quietly.

The fuss around the astronaut and his fiancée, the doctor's visit and lengthy explanations and conversations with members of the family occupied the second half of the day. Finally, Vasily was put to bed, in spite of his loud protests, and given tea with raspberry jam, the standard remedy for all ills. Resting on a pile of pillows, he rolled his eyes and called upon all the constellations of the universe to bear witness to the fact that he was well, uninjured, and had no desire whatsoever to stay in bed. But his mother and Oxana, sitting on either side of his bed, were implacable.

"But, heavens, you must understand that nothing dreadful has happened! The autoplane was only two or three meters over the field. Then something seemed to hit us and we lost consciousness. That's all. And there's no need to keep me in bed according to the latest word in cosmic medicine."

"I've told you, over my dead body," Olga Panteleyevna said, pressing her son's shoulder back into the pillows with her small dry fist. "Lie still."

Oxana and Yegorov exchanged glances and burst out laughing. Yegorov went up to his balcony. He felt exhausted. The sun had already set, but the sky was bright crimson. The village was hidden in deep shadows.

Yegorov took out the wisp of unfamiliar fabric he had taken from the autoplane. It had become still smaller. He smoothed it out and held it up to the light. It was faintly translucent.

"Skin! Human skin! Skin from Oxana's finger," he said quietly.

Vasily was already dozing on the down pillows when someone insistently plucked him by the hand. In the shimmering moonlight he saw the figure of his friend. Yegorov was pressing his finger to his lips.

"Sh-sh," said Yegorov. "Can you come?"

"Yes. What happened?" asked Vasily, jumping up. "Anything wrong with Valya?"

"No, Valya is perfectly all right. Come with me."

Yegorov walked ahead, carefully lifting his feet. The house was silent. An orange strip of light glowed under the door of Olga Panteleyevna's room.

Yegorov brought Nechiporenko to the study on the second floor, where a stranger sat in the dim light of the desk lamp.

"Captain Samoylenko," he introduced himself, rising.

Vasily pressed the extended hand.

"This comrade has come to arrest Tend," said Yegorov. "Angelo killed the Disneys, stole their materials and escaped."

"What?" Vasily straightened up.

"Do you understand what you are saying?"

"I do. Time is short. The comrade was lucky he met me first. Tend is a dangerous criminal."

"The Americans have asked us to arrest the murderer of the four famous Mars explorers," said Samoylenko.

"But why would he do it?" cried Vasily.

"Power, gold . . . who knows why?" said Yegorov.

"I must conduct a search. Will you agree to be my witnesses?"

Vasily nodded, still understanding nothing.

"But where is Tend?"

"He went to the movies with Oxana," said Yegorov.

Vasily silently bowed his head and bit his lip.

"You two go ahead, I'll stay here a while," he said.

Ten minutes later Yegorov and Samoylenko dragged in a large yellow valise.

"All of Calder's notes are here," said Yegorov, his face red with the strain of lifting the heavy valise.

"I shall have to confiscate all this," Samoylenko said severely.

He took out a folder and made a notation with a worried air. A microfilm camera appeared in his hands.

Vasily watched everything as in a dream. The meaning of the words spoken did not seem to reach him.

"Why did he have to do it? Why?" he muttered.

"What do you mean, why?" Yegorov said excitedly, showing him a bundle of photographs. "Here are the crosses from which Calder decoded

the writing of the last Martian. You see these endless geometric designs? Calder discovered from them where the last door to Aiya was to be found! Do you see now?"

"Very well, suppose such a door exists and functions somewhere on Mars," argued Vasily, watching Samoylenko photograph the heavy red crystals. Vasily knew them well; he had pried out thousands of them from the ceiling and walls of the Red Cupola.

"No! No! That isn't it at all!" cried Yegorov. "This door may be the boundary of anti-space. It may have extraordinary properties!"

"Very well," Nechiporenko interrupted him. "Suppose this is so. But Calder Disney did not have this door, he merely knew about it. The door remained on Mars, it must still be found. Then why did Angelo have to kill him?"

"Ah, what a fool I am!" Yegorov said quickly. "You don't know the main thing."

He jumped up from his chair.

"Come on, let him work here, he still has a lot to do!" Yegorov pointed at Samoylenko, who was busy photographing the contents of the yellow valise.

Vasily reluctantly followed his friend to the balcony. Yegorov brought him over to the couch, at the head of which hung the mirror from Mars. Its golden rim shone with a cold, glimmering light.

"Feel it," whispered Yegorov.

Vasily touched the rim and snatched away his hand.

"Hot?" laughed Yegorov. He

seemed to be highly pleased with everything that happened.

"No, not hot, but —"

"It burns? You see?" Yegorov was anxious to share his secret. "But that isn't the main thing," he said. "Look into the mirror, what do you see there?"

"What? Night, the sickle of the moon, the village," Vasily began to enumerate uncertainly.

"Fine. And what is this? This dark, elongated spot. What is it?"

Nechiporenko peered into the mirror.

"A haystack."

"A haystack? Good, very, very good."

Yegorov went out and soon returned with a glass of water. He put it down on the sofa and took a cigarette lighter from his pocket. Click, and the smoking tongue of flame feebly lit up the night air. There was a smell of benzine. Yegorov brought the flame close to the mirror, where the haystack loomed darkly like a caterpillar. Then he took the fire away.

Vasily cried out. He could not take his eyes from the mirror. The reflection continued to burn there. Yegorov carefully took Vasily by the shoulders and turned him to face the village.

Flames were rising on the horizon. Their bright-orange tongues were clearly seen even at that distance. Over them floated gray puffs of smoke, dissolving in the darkness. Scarlet rivulets spread out on the ground.

"What have you done?"

"Keep calm!" said Yegorov. He took a mouthful of water from the glass and blew it at the mirror in a thin spray.

Vasily heard a distant roar and hiss. The flame on the horizon flared once, twice, and went out. Smoke coiled over the stack in the moonlight.

"I daren't pour any more water, or there will be a flood," Yegorov said peacefully.

"So this is it?" Vasily asked under his breath, pointing at the mirror.

"Yes, brother, that's it," Yegorov began to hurry. "The only unlocked door to Aiya. It was not working on Mars, but here in Musikovka, as you see, it opened up. Rogozhin's Martian had had no time to lock it. And so it stood ajar five million years. Or perhaps it wasn't millions? Angelo decided to use it for his own shady purposes. Now you understand why he came to you after the Disneys? You saw how it burned? And do you know that your autoplane, a thousand horsepower strong, was thrown down by a touch of Oxana's little finger? Accidentally, of course. Now you understand the power of it?"

Vasily understood everything. A medley of desperate events locked themselves into a logical chain.

"What a find!" he whispered, slapping Yegorov on the shoulder. "So we've caught the Martian devil by the tail!"

"We'd better hurry up and make the sign of the cross over him, the foul fiend!" cried Yegorov.

The friends returned to the study.

"Do you have much left to do?"

Yegorov asked Samoylenko.

"I am finishing now."

Vasily sat down rather gloomily.

"What is it?" shouted Yegorov. "You ought to be happy! Such a discovery!"

"I don't know. I cannot imagine an astronaut doing such things. It isn't the first year that Tend has been tramping on planets."

"Finished," Samoylenko sighed with relief and sat down in an armchair, turning his camera on Yegorov and Nechiporenko. "The last of the material evidence. For my own self, as a memento."

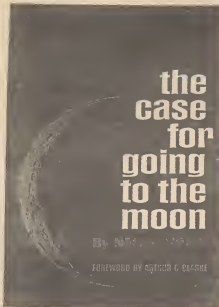
"Don't, don't!" They waved at him. "What for?"

The door opened and Tend entered the room. He glanced at the sitting men, the open valise, the straps with their shiny buckles, resembling dry snakeskins, the crystals, the photographs, the notes, and understood everything.

Vasily gave the Spaniard a long pained look. Yegorov and Samoylenko exchanged glances. The latter took a small red notebook and put it on his knee with a bored air. But for some reason he did not get up.

Tend did not give anyone a second glance. He walked out to the balcony. The men in the study quickly looked at each other. They seemed amused at what was about to follow. Angelo returned with the mirror from Mars. He set it down on the floor, tilting it slightly.

Then he took the black red and passed it around the mirror's golden frame. There was a distant ringing hum, as if a jet plane were flying somewhere overhead at a great height. Tend took the bundle of



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photographs and flung them at the mirror. They disappeared. The crystals from the Red Cupola, the notes, the rolls of tape, the Disney brothers' diary, and the valise with its snake-like straps followed. All the objects vanished without a sound.

"But why don't we get up?" Yegorov thought with fright.

Tend approached the mirror and looked back.

Yegorov felt that consciousness was slipping from him. A terrible weight pressed down on his head and bent it to his chest. "It will burst in a moment," the terrified thought flashed through his mind.

Samoylenko fought the longest. At the very last moment, when Tend began to dissolve in the air, losing his normal shape, the captain tried to jump up. Tend turned his head and the captain fell back into the chair. His camera clicked faintly.

"I did not kill the Disneys. They —" Angelo's voice reached the highest notes and broke off.

Samoylenko was justly proud of himself. He had made the only existing photograph of a live Martian. Three eyes, set at the corners of a perfect triangle, looked out from it with passionate, unearthly power. They were deep and infinitely wise.

Yegorov picked up the gray, glistering oval. The mirror coldly reflected reality. The last door to Aiya was closed.

And yet, for how long? END



The Coming of Age of Soviet Science Fiction

A Discussion of Ivan Yefremov's *Andromeda*

by JOHN R. ISAAC

Julius Kagarlitsky credits Ivan Yefremov's *Andromeda* with playing "a very noticeable role" in the decisive turn of Soviet sf from a technical fantasy-literature to the social genre. Yet he gives no further mention to this pivotal novel. This is unfortunate.

In this single book, Yefremov has developed a *Weltanschauung* into a detailed future society and has thrown out enough ideas for a hundred stories, a service that should prove as beneficial for the Soviets as Wells's work has for the English-speaking world. It is in these terms of a future communist society with a history, an educational system, an esthetic, a faith that is not a religion and political organization that is not government that *Andromeda: A Space-Age Tale* (or *The Andromeda Nebula*, to give it its Russian title) has been influential in the decade since it was first published. It is in these terms, therefore, that it shall be reviewed.

Andromeda is set in the Great World of 3000 years hence. Unlike most utopias, however, Yefremov's is one in which a person might enjoy living. It is one in which room is left for human diversity and even a little human frailty.

The theme of the book is that "happiness can derive from labor, from a never-ceasing struggle against nature, the overcoming of difficulties and the solution of ever new problems arising out of the development of science and economy." In the communist society, people, feeling themselves "particles of mankind engaged in collective creative activity," are able to enjoy such happiness.

This theme is reiterated in the lives, work and loves of more than three dozen characters. A people and their society are shown in the perilous homeward journey — at a period still lacking a faster-than-light drive — of Cosmic Expedition No. 37; in the possibly successful attempt to instantaneously bridge the parsecs to

Epsilon Tucanae, which ends in catastrophic failure; and in the archeological exploration of a past which is the past and present of the Twentieth Century. The people are a mature lot. The society is surprising — a utopia which is evolving, which is striving to become better.

This unique utopia is the product of four Eras:

Era of Disunity

Fission Age

Era of World Unity

Age of Alliance

Age of Lingual Disunity

Age of Power Development

Age of the Common Tongue

Era of Common Labor

Age of Simplification

Age of Realignment

Age of First Abundance

Age of the Cosmos

Era of the Great Circle

The Twentieth-Century Fission Age world, divided against itself into two camps of differing economic systems, could not long endure. Slowly, with difficulty, the new social system of communism spread over the Earth. Poverty, hunger and heavy, exhausting toil disappeared. Social consciousness was inculcated into every person, and thus, inevitably, began the Era of World Unity.

Succeeding ages followed ever more rapidly after one another. Progressively expanding science embraced all aspects of life; a growing number of people came to know the joy of the creator. And then commenced "the most magnificent era in man's history," the Era of Common Labor.

Everyday articles and machines were simplified. Man ceased to be a slave of his possessions.

Eight centuries before the time of *Andromeda*, the Era of the Great Circle began. A television transmission from 61 Cygni was recorded, a welcome to the Circle of Great Power. The Great Circle is a sort of interstellar party line of cultivated planets in our part of our branch of the Milky Way; it transmits historical, economic, scientific, philosophic and cultural gossip. Recently a transmission had been received from the fourteen planets of Deneb, 122 parsecs distant from us, in reply to a transmission sent out from Earth eight hundred years before.

For all the changes, some things have remained the same. Babies still are born in the usual way. For their first year, they are nursed by their mothers. But as soon as they have been weaned, they are given up to the school. From that time, parent and child will see one another only at visits. Despite a closeness of feeling, there is no "family" as we know it.

Education is designed to overcome three enemies: the "I," one's greedy self-love and unbridled desires, which is man's most dangerous enemy; the crudeness of perception, sometimes seeming to be a primitive naturalness, which destroys the key to measure and understanding; the empty and indolent spirit that arises out of a morbid insufficiency of energy in the body.

Through his schooling, the child comes to be the creator of his own

freedom. While there is less liberty for the individual to satisfy his petty passions and desires, there is also less limitation and more broadmindedness in relations between people. The child frees himself *from* his three enemies, thus achieving the freedom *of* choosing from among the many roads open to him: a freedom to dream; to know; to move; to struggle; to labor.

Schooling is divided into three four-year cycles. In addition, there is a prior, zero-cycle for children from one to four. Upon completing each cycle, the child is transferred to another part of the planet to continue his education. This breaks the uniformity of impressions caused by a single environment, thereby encouraging the development of a keen perception of and a sensitive communion with nature.

Although each cycle has separate teaching and living quarters, schools of different cycles are often situated in the same locale, and mentor or "big-brother" relationships are usual.

In the schooling itself, academic lessons are interspersed with polytechnics. Repagular calculus and the dialectics of history might be separated by the grinding of optical lenses.

Upon graduation, each youth is administered a battery of psychological tests to determine which fields will be open to him.

For the next three years, until one is twenty, he follows a series of twelve matriculation tasks, the so-called Labors of Hercules. Six are allotted upon graduation, and the final sextet upon completion of the first six. Tasks vary from those which are done singly to group projects. Typi-

cal Labors are: Explain the causes for the appearance of the big octopi in the region of the recent lift near Trinidad. Destroy the octopi. Collect material on the ancient dances of the Island of Bali and then revive them musically and choreographically. Work at the Jutland Psychological Hospital.

After his Labors, a youngster's interests and abilities are clearly defined. If he has performed his tasks successfully, he is considered worthy for the two-year higher education which gives him the right to independent work in his chosen field.

In the course of a long life (170 to 300 years), a man or woman may return five or six times for higher education in other fields, thus enabling him to change his line of work.

Correct physical training for thousands of years has made the average person the equal of the geniuses and heroes of antiquity, insatiable in his desire for heroic deeds, love and knowledge. People, searching for difficult mental problems, generally choose scientific work. But, carried on intensively or extensively, this may bring on work fatigue. Work must be varied. Darr Veter's has included, in this order, being an engine driver on the Spiral Way, Director of the Outer Stations, an archeologist's helper, a mechanic in the undersea titanium mines and director of assembling a space station.

The esthetics of the Great World, and the painting, dance and music deriving therefrom, are described in detail.

Beauty is an instinctively comprehended purposefulness of structure

that is adapted to definite objectives. The more varied the objectives, the more beautiful the form. It is a kind of polyfunctionalism. The duty (and in the Great World art does have a duty) of art is to develop man's emotional side; only art can rightly attune the human psyche and prepare it for the acceptance of the most complicated impressions, the most diverse phenomena. For instance, two youths, a biocyberneticist and a musician, hope to reduce the entire evolution of all living and non-living matter to one gigantic symphony, the plan and internal rhythm of which are determined by basic physical laws.

Yefremov describes one effort in this direction, Zieg Zohr's 13th Cosmic Symphony in F-minor, Color Tone 4.75mu. Darr Veter, a member of the audience, sees and hears, feels and experiences, understands a symphonic analogue of creation. He is in a dark hall. There is a faintly flickering light

in the darkness and the noise of the sea can just be heard. Somewhere, incredibly far away, a low note sounds, a note so rich in tone that it seems almost tangible. It grows in volume, shattering the room and the hearts of the listeners and then suddenly becomes softer, rises to a higher note and is broken and scattered in a million crystal fragments. Tiny orange sparks appear in the dark atmosphere. It is like that flash of primordial lightning whose discharge on Earth, millions of centuries ago, fused simple carbon compounds

to form the more intricate molecules, the basis of organic matter and life.

A wave of alarming and dissonant sounds flood the room, a thousand-voiced chorus of will-power, yearning and despair to complement which vague shadows of purple and vermillion come in hurried flashes and die away again.

In the movement of the short and strongly vibrant notes a circular arrangement can be felt and is accompanied by an irregular spiral of whirling gray fire in the heights. Suddenly the whirling chorus of sounds is severed by long notes, proud and resonant, filled with impetuous force.

The vague fiery outlines of space are pierced by clear lines of blue fiery arrows that fly into the bottomless void beyond the edges of the spiral and are drowned in the darkness of horror and silence.

Darkness and silence — on this note ends the first movement of the symphony.

Immediately the music begins again. Extensive cascades of powerful sounds are accompanied by dazzling opalescences that cover the whole spectrum; they fall, weakening as they grow lower, and glowing fire dies away to their melancholy rhythm. Again something narrow and vehement breaks through the falling cascades and again blue lights begin their rhythmic, dancing ascent.

One catches in the blue sounds an urge toward ever more complicated rhythms and forms — the primitive struggle of life against entropy could not be better expressed. Steps, dams, filters holding back the cascades that are falling to lower levels of energy. To retain them for one moment and in that moment to live! So, so and so — there they were, those first splashes of the complicated organization of matter.

Blue arrows resolve into a round dance of geometric figures, crystal and lattice forms that various combinations of minor tercets, fall apart, are again combined and then suddenly dissolve in the gray twilight.

The third movement begins with the measured tread of bass notes in time with which blue lanterns are lit and extinguished as they move off into the void of infinite space and time. The surge of tramping basses increases, their rhythm grows faster until they merge into a broken, ominous melody. The blue lights are like flowers swaying on thin stems of fire — they bow their heads sadly under the flood of low, thundering and blasting notes and are extinguished in the distance. But the lines of lights or lanterns become denser and their stems are thicker. Then two fiery strips mark a road leading into immeasurable blackness and the resonant golden voices of life float into the im-

menseness of the Universe, warming with a glorious warmth gloomy, indifferent, ever-moving matter. The dark road changes to a river, a gigantic stream of blue flames in which splashes of multicolored fire makes a pattern that is constantly changing and becoming more intricate.

The higher combinations of rounded, regular curves and spherical surfaces are of a beauty equal to that of the contradictory quartal chords, in the succession of which a complicated resonant melody increases rapidly, whirling more powerfully and expansively in the rhythmical advance of the low rumble of time.

One can no longer follow all the shades of music and color; one grasps only the general outline of the gigantic idea. The blue ocean of high notes, pure as crystal, glow with a beaming, unusually powerful, joyful and clear color. The tone rises higher and higher and the melody itself begins rotating furiously in an ascending spiral until it breaks off in flight, in a blinding flash of fire.

On a less cosmic scale etiquette, too, has changed. It is not considered proper for mature adults to show their feelings in any way. (Perhaps because Yefremov is Russian, however, "dear friends" may still embrace when meeting and kiss upon parting.) Greeting important people with a scarcely perceptible shade of

respect is considered the hallmark of politeness. (This is as close as Yefremov comes to admitting any differences in status among adults.) Verbosity is considered one of the most disgraceful failings possible in a man. Flattery is a *faux pas*.

Personal possessions are just about limited to a few photographs and tapes, one or two pictures and statuettes, and some clothes.

The Great World is a rational society, the product of man's rational development. Some of its citizens, though, are coming to fear that it has become too rational; man may have developed in too one-sided, too technical a manner, resulting in an imperfect harmony with life. People have learned to suppress strong emotions, but by suppressing them they make themselves the poorer. Wisdom is a balance of knowledge and feelings. To gain this balance, a revival of romanticism is beginning.

Religion is mentioned only fleetingly: "the supernatural being whom the ancients called God." "Angels — that's what religious Europeans in the old days called the imaginary spirits of heaven." There is also a possibly symbolic mention of a black cross, "a living being engendered by the world of darkness", which is encountered on a planet of a dark star.

If the people of the Great World can be said to have a religion at all, it rests on two tenets: A faith that man, "linked by the power of knowledge with many inhabited worlds" will spread "the wings of joman thought over the infinity of the Cosmos." A faith that there is immanent within things Laws of Nature which

can be *discovered* by man. This is in contrast to the view that Laws of Nature are invented by man to describe an observed persistence of pattern in the observed succession of natural things.

A scientist who holds that laws are invented may *believe* that some laws are very close to the way things are, but he can neither *know* nor *ascertain* that they are. He therefore will tend to be humble about his knowledge, his laws. On the contrary, the scientist who holds that laws are discovered will tend to be dogmatic; for example, he *knows* that "the laws of development are immutable," and that therefore there can be no non-carbon based life which might exist on a hot planet. In the Great World he does not have to bother traveling there to check out his "knowledge."

To be fair, one must admit that the Great World's range of acceptable discovered laws is wider than today's range of acceptable invented laws. "Thought transmission without speech" is considered the Third Form of Signals, the next direction of man's development in communicating.

Mankind is supposed to avoid "the slightest sign of the absolute in opinions, desires and tastes," no longer acquiescing to those who proclaim themselves the sole holders of the truth. But Yefremov does not explain just how laws are differentiated from opinions, desires and tastes.

Except for spaceship commanders, single-handed responsibility has long since been abandoned. Decisions are taken collectively by the group of people who have to carry them

out. In the case of unusual occurrences or intricate problems, advice and consultations are always arrangeable. It is notable that on Cosmic Expedition No. 37, when the commander was in long sleep, the astronautnavigator was unable to make a sound decision and, in consequence, brought about the entrapment of the ship by a dark star.

Although there is no government as such, there is political organization. At the center, of course, is the Economic Council, linked directly to the consultative Academies: of Sorrow and Joy; of Productive Forces; of Stochastics and Prognostication; of the Psychophysiology of Labor. There is lateral connection with the Astronautical Council, an independent body. From the latter there is direct communication with the Outer Stations of the Great Circle. There is also a Control of Honor and Justice, a sort of judicial review body which constitutes the guardian of every person on the planet.

At each council vote, the audience also votes in order "to control the correctness of the council's decision."

Yefremov does not mention how council members are selected.

What if a citizen of the Era of the Great Circle does not like the way things are? Where Heinlein had his Coventry, Yefremov has an Island

of Oblivion (Ceylon). It is a happy asylum, not only for those who are not attracted by the feverish activity of the Great World and who do not want to work on the same level as other people but also for the status and power hungry.

In addition, Java is used as a second Coventry-like island for those mothers who want to bring up their own children.

There is an inclination for the Western reader to feel that Soviet science fiction is rife with communist propaganda, just as there is for the Russian reader to feel that American science fiction is propagandizing capitalism. In the sense that by propaganda one means debates and lectures pointing out the "right way," there is little propaganda in *Andromeda*. Yefremov assumes his dialectical materialism; he does not have to be constantly advancing arguments in favor of it.

In a much more subtle sense, the entire novel is communist propaganda. The Great World of the Era of the Great Circle is the classless society of the Marxist vision. For the dreamers of the world, whether Russian or American, Occidental or Oriental, the vision of *Andromeda* is a tempting one.

END

THE WORLD'S ONLY WORLD-WIDE

Science-Fiction Magazine

Each issue of INTERNATIONAL SCIENCE FICTION brings you science-fiction stories from all over the world — all the continents, with stories from many languages. It's the newest idea in science fiction — don't miss the next issue!

From THE NETHERLANDS

DER HEISSE KOSMONAUT

by GUST GILS

He was bound for a journey to the sun, and so they were acclimatizing him to high temperatures. First of all (by means of increasingly hot baths) to the temperature of boiling water. As soon as he felt good and cosy in this, heat was raised gradually. Before long he could stand boiling lead. Next came the more hot-tempered metals. Eventually he was able to take a liquid steel shower. It got him a nice sun-tan as well.

His system adjusted marvelously, to such a point that intense heat was becoming a need to him. He began acting unbelievably shivery: at less than 3000 degrees celsius he felt chilly already! Which set science the difficult task of creating him an environment in which he didn't freeze to death. How was one to maintain this

sort of temperature on board the sunship? How was one to build instruments able to function in such circumstances; and how was he to note down his observations, on what kind of indestructible stuff? But as a matter of course the clever brains found a solution to everything, including a suitable diet for this out-of-the-way subject: liquid steel paps (iron for the red corpuscles) and fresh draughts of lower melting metal. And while the hot cosmonaut was on hot pins and needles waiting in his hot blast-furnace, the sunship (called the *Ikaros I*, what else?) was completed at last. Triumphant was the day when the white-hot colossus ascended vertically on the fiery orgasm of its exhaust and noisily tore away out of the terrestrial atmosphere.

The journey was going ahead smoothly. Periodically the cosmonaut would transmit his observations. For a spell he was complaining about the cold, but felt better off as soon as he was nearing his target. Blazing enthusiasm! Never before had he been in warmer corners, and boy didn't he like it! The landing on the sun came about nicely, and then he all but went frantic with elation. "Everything fine around here, send my family over," he broadcasted earthward. And was staggered at the rebuff he met with.

A lengthy argument by signal code followed. "Give it a trial!" he pleaded. "Take the same conditioning as I did and come hither, you people don't know what you're missing!" He grew unreasonable, as fanatics will. He was put in the wrong yet would not let the matter rest. When he was ordered to resume his observations (which he had made the journey for in the first place) he flatly refused!

The heat had gone to his head, the

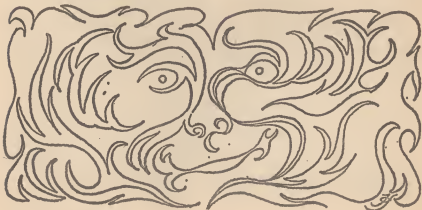
organizers concluded. A pity about all the money and trouble, but in that case the experiment had proved a failure and he just had to come back without any data. What! Come back? The stream of abuse flashing right then from sun to earth through interplanetary vacuum was unprecedented in all of the history of space-travel:

"Freeze me to death, that's what you're at! Scoundrels! Tyrants! Murderers! But you won't get away with it! I'm not moving an inch! I'm staying right here! I never had it so good in all my life, and that's what you're begrudging me, you scum, you deep-freeze vermin you! You'll never set eyes on me again!"

He meant what he said. He has never come back. And though he hasn't been heard of any more he's supposed to be in good health.

And he may be seen every now and then, in foggy weather or through a piece of black-smoked glass, as the little man in the sun.

END



NOTES FROM A CYCLICAL HOUSEWIFE'S DIARY

by JULIETTE RAABE
translated by Damon Knight

Saturday, Jan. 28

12:08

Back from the market, bag full, heavy to carry; I've got my old pain in the small of the back.

12:05

On my landing; finally! Here we are! Where's my key? At the bottom of the bag, evidently. I'll have to go back to the market and dump everything out

11:30

Received:

105 francs (old) for a little cauliflower

160 francs (old) for a bag of oranges and 100 francs (ditto) for a bunch of bananas.

11:11

Find myself with 1,111 francs and my key. Don't remember when I ever made money so easily.

10:47

Home at last. Oof. The day's almost over. It'll be bed time soon; funny, though, I feel fuller than I did awhile ago.

9:30

Sitting in the kitchen; right away made a cup of coffee with cream, a roll and a pat of butter. It must have been all that that made me feel so full.

9:01

To bed for the night.

Friday, Jan. 27

10:15

Get up; dress; horribly tired. Give myself a couple of strokes of the tangle in front of the glass; I really don't look so good.

Stomach heavy again. Produce: 2 oranges, 1 piece of roquefort, 1 can of tuna fish, with 1 tomato.

Put them all in the refrigerator.

9:35

I feel nervous.

Pick up the telephone going through the foyer; just then, a voice starts to talk; it's my old aunt Astrid:

"Anna, rake Kate."

"Dirt's at Gnaw Park, oh."

"Cool."

"Ooh?"

"Me deadlock, Ucksiel!"

"Taw?"

"Mu, mu"

"Eat, gnaw."

"Hola!"

The bell puts an end to this exciting conversation. Always the same nasty tongue, my aunt! All the same, I wonder what Luc sees in Robert's wife

9:30 to 8:30

Watch television. It makes more sense than usual.

8:20

So stiff! And to think the day's hardly begun.

8:13

Hear a gurgling in the bathroom. Dirty water comes up out of the drain and fills the washbasin. Can't stand dirty water! Don't even think of putting it off. Put my hands in quickly and make it run up the faucet. Robert's wife wouldn't do as much; she's a slob.

8:09

My hands are all black. Just then the stove in the living room is spitting out a shovel-load of coal. I wipe my hands afterward. While I'm at it, I take the coal down in the cellar. There's already a big pile down there, the coal man can come and take delivery before long.

7:50

Take the clean clothes out of the bureaus. Smoothed and folded carefully the way they are, it'll take me forever to get them into condition. Can't hang them up now. Finally the iron's hot, I plug it in. First thing you know, I've ironed out a crease! My mind is really somewhere else.

6:15

None too soon, it's finished; all the clothes are well crumpled; now I can put them to soak in the dryer.

5:00 to 2:30

Spit up a few caramels.

Nothing done all morning. Just looked at the laundry. Beginning to drip. In a minute I can use it to clean up that big tub full of soapy water that I found under the bathtub.

That's done, the laundry's in good condition, especially the woolens and nylons. But there's plenty left to do, believe me. When one tub-full is cleaned out and put under the faucet, there's another to take its place; you wonder if you'll ever be finished; then all of a sudden, bang, no more comes out; the laundry is all gray and dry; nothing but a handful of white powder in the bottom of the tub; I throw it in its box.

I feel better than I did when I got up; work isn't all that bad, really. And yet what'll you bet Robert's wife has spent the whole day in her living room (thinking about Luc, probably), slouched in an armchair, making cigarettes, bonbons, petits fours, the stuff that comes out of her, well! When it isn't creams, beauty milk and so on All for what? To buy her husband a more expensive right to work than other people have; but rights to work, why, there's some for next to nothing, so I wonder what's the point of it. It's all swank, the whole thing: "You know, dear, how much his right to work cost him since last month? 280,000 francs, no more, no less!" Pretentious people like that give me a pain.

But you know maybe it's just in their nature, because take me, whether I want to or not, there hasn't been a drop of cologne come out of my whole body since tomorrow noon.

12:30

There. All the laundry's dry, ready to be worn; it's finished making its water and it's amazing how much dirt it's picked up.

And then, all of a sudden, I make them, I make some expensive things: a big piece of roquefort (the cheese is finished now), a steak, salad, peas to put in the can, and then olives, anchovies, not to mention the bread and butter. I'll go deliver them right away. Another tidy little sum to add to the envelope of daily receipts.

11:21

The doorbell rings. It's the gas man, who's just leaving. I'm already in my pajamas; I'm going to bed.

Thursday, Jan. 26

Up at midnight to go to the movies. Saw *Sucatraps*. It's a very daring picture; you see the birth of a young girl; she comes out of a lion's mouth and cries right away. Not a painless childbirth, I'll swear to that.

In the morning

I empty the vacuum cleaner on the dining-room rug, and especially on the furniture. I putter around.

There's something burning me on the back of the hand. When I look at it close, it's like a blister; I wonder what it is.

Noon

Take the boiling soup out of the refrigerator, make a little more, put it to cool on the gas.

9:40

Looking at my hand; it still burns. Beginning to get worried; now a big yellow glob comes out; it looks like ointment. I put it in a tube I find in the medicine chest, but it hurts worse than ever, damn it. Roger will be home soon, but I can't help it, I feel too bad, I won't wait for him, I'm going to bed.

I sleep. I hear the door bang. Must be Roger coming back from his trip finally. He acts terribly rushed, barely kisses me; I can't get a word out of him. He's sound asleep before the alarm clock quits ringing. He could show a little interest in me, anyway, after a week away from home, and with this pain I have in my hand. "Roger wake up," I tell him, "it isn't so late." He looks furious. "Leave me alone," he snaps. "I've got a good hour ahead of me. Anybody would think you don't know I've got to drive five hundred kilometers today. If you're looking for romantic effusions, wasn't last night enough for you?"

This time he's gone too far. Just because I went to the movies one time without him, doesn't mean he can make dirty insinuations.

I sleep. This time he's the one that wakes me up. And enterprising at that hour. I'm still sleepy, it can't be more than one o'clock. Anyhow.

"Another whole week I'll have to spend without you," Roger murmurs tenderly.

There's something definitely funny about what he says. With all these trips . . .

11:10

I get up, feeling blue. Take a

shower. What could be wrong with my hand? Now it's making a big blister, and yellow ointment comes out of it again. I put it in the tube. According to the instructions, that ought to be enough. But meanwhile I feel so bad I can't help crying.

9:30

We're going to sit down at the table. I lay out the dirty plates and silverware that were piled in the sink, while Roger brings in the full garbage can.

We make a lot of expensive things. A whole bottle of Burgundy, for one. Then we play making fish. I share out a nice little pile of fish-bones I found in the garbage can. It's really a crazy game, putting together a fish-puzzle, and not so easy to do. Spitting it up is not too hard, but you have to put the pieces in just the right place and not lose any. Roger gets ahead of me at first, but then he starts to cough; that makes me burst out laughing. Then, it's too bad, coughing so

hard makes him spit up the one bone he needs to finish. I'm furious, I knew he was missing a piece and counted on winning that way. Anyhow, we finish together, in such a rush that I nearly choke. There's a lot of suspense in this game; right up to the last minute, for instance, sometimes you keep wondering what kind of fish it's going to be. Roger claimed it was a whiting, but he really didn't know. I bet it was a trout, and I win. On top of that, mine was the biggest.

8:44

Two beautiful blue trout. I get up to put them in the pot. Owl! I hit my hand on the hot rim, right on top of that nasty blister that's making me so miserable. A bad moment to go through, but I'm not sorry; because afterward my hand is smooth and white again, and doesn't hurt me at all.

8:41

Wonderful, these trout! It doesn't take them long to come to life, if



the water's hot enough, apparently; no more than three minutes, and hop! one after the other, they're wriggling in my hands. They've lost their beautiful blue color. They've turned brown, with little dark spots. They're cool and shiny, and so slippery that it's a job to keep from dropping them. There's a tub full of clear water in the sink; I throw them in. Roger is pleased; he says trout that big are expensive. I don't want to part with them, I won't take them to the fishmonger. It's nice to have pets, when you're left alone so much.

I like fish better than a cat; I don't know why, cats give me the willies. Madame Marnet has one that looks like a cow, he's so fat, and sneaky. Always prowling over the cornices to see if he can't find a window open and go in and spit up in the neighbors' apartments. Almost always unsaleable stuff. If she'd give him his own plate, that wouldn't happen

I've forgotten the time, looking at my trout. They're fine, swimming around gently in their tub. The window's open so they won't get too hot

Suddenly Roger gets up and goes to open the door; I follow. It's Madame Marnet, come to bring us the latest gossip; while she's at it, she asks if we've seen her cat. We tell her no.

8:41

We hear a noise in the kitchen. My trout! Oh, the brute, the dirty brute! Madame Marnet's cat! He's got them out of the tub. When I try to pick them up, he gets all

bristly and scratches my hand; they're on the floor now, my pretty trout; they're not moving any more; they haven't even turned blue.

8:44

What a terrible cat! A monster! He's making them go into his mouth; I don't dare touch them any more; I scream.

Roger comes, with Madame Marnet behind him. Roger grabs the cat and swears at Madame Marnet. Madame Marnet murmurs, "Poor dear naughty little kitty." They go on that way for a while. I have a fit of hysterical laughter. Madame Marnet promises to bring two more trout, and she slips out without ringing.

I see Roger pick up the broom and dustpan; he sweeps up a little pile of bones and dumps them in the garbage can. It's already full; I tell him so, but he picks it up and carries it down to the courtyard; he brings it back empty.

I cry.

I cry.

10:30

No more trout, the cat has scratched my hand; I'm afraid for Roger to go away. I cry.

11:00

I cry. Roger takes me into the shower stall. The water comes out of the ceiling, it falls all around me.

11:10

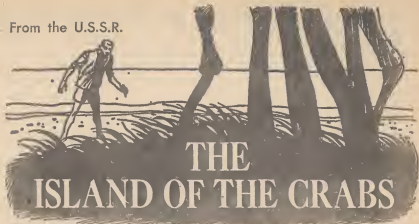
Roger helps me into bed. At this time of day! He must think I'm sick.

I don't say anything.

Everything around me is so absurd!

END

From the U.S.S.R.



by A. DNEPROV

I

“Careful there!” yelled Cookling to the sailors, standing waist-deep in water and dragging a small wooden crate, just thrown overboard, along the side of the launch.

It was the last of ten crates which the engineer had brought to the island.

“What heat! Enough to bake a person!” Cookling moaned, wiping his thick, red neck with a colored handkerchief. He took off his shirt, damp with sweat, and threw it on the sand. “Take some of those clothes off, Budd. We’re miles from civilization.”

I looked despairingly at the small sailing schooner that slowly bobbed on the waves, a mile or so off shore. It would be coming back for us in twenty days.

“Why the devil did we have to drag your machines to this solar hell?” I said to Cookling as I took

off some clothes. “In a sun like this, by tomorrow your skin will be dry enough to roll cigarettes in.”

“Never mind. The sun will be very useful to us. Look, it’s exactly noon now, and the sun is directly overhead.”

“It’s always that way at the equator,” I grumbled, without taking my eyes off the *Bluebird*. “You can read about it in any geography textbook.”

The sailors came up to the engineer Cookling and stood silently in front of him. He slowly took out a wad of money.

“That enough?” he asked, holding out a few bills.

One of the sailors nodded.

“Okay, you can go back to the ship. Remind Captain Gayle that we expect him in twenty days. Budd — let’s get to work. I’m anxious to start.”

I looked at him intently:

“I’ll speak bluntly. I don’t know why we’ve come here. I can under-

stand that at the Admiralty, perhaps, it was awkward for you to tell me everything. But now I think you can."

Cookling grimaced and looked at the sand.

"Of course I can. Even at the Admiralty I would have told you about it all if there had been time"

I felt he was lying, but I didn't say anything. Cookling stood there and wiped his crimson-red neck with the palm of a fat hand. He always did that when he was getting ready to lie about something.

"You see, Budd, it's about an interesting experiment to check the theory of . . . Charles Darwin."

I moved right up next to him and laid my hand on his bare shoulder.

"Listen, Cookling. Do you really think I'm an idiot and don't know who Charles Darwin was? Get to the point and tell me why we've unloaded here on this scorched piece of sand in the middle of the ocean. And no more about Darwin, please."

Cookling started to laugh. His open mouth showed a bunch of metal teeth. He took four or five steps to one side, then said:

"You *are* a blockhead, Budd! We're really here to test Darwin's theory."

"You mean we dragged ten crates of iron here, just for that?" I asked. A hatred began to build up in me toward this fat being glistening with sweat.

"Yes," he said, and stopped smiling. "As for your duties, go open crate number one and get out the tent, drinking water, canned goods and the tool you'll need to open the other crates."

Cookling was beginning to talk to me the way he did on the target range when we met. We were both in the service then.

"All right," I said through my teeth. I went up to crate number one.

In two hours' time the large tent was set up right on the shore. Into it we put a shovel, crowbar, hammer, some screwdrivers, a chisel and other metal-working tools. We also put there a hundred or so cans of food, and the containers of fresh water.

Despite his higher rank, Cookling worked like a horse. He really couldn't wait to get down to business. We worked so hard that we didn't notice when the *Bluebird* had got under way and disappeared over the horizon.

After supper we set to work on crate number two. There we found an ordinary two-wheeled dolly, like the ones used in railroad stations for carting baggage.

I went up to the third crate, but Cookling stopped me:

"Let's take a look at the map first. We're going to have to carry the rest of the material to different places."

The island was round like an overturned bowl, with a small inlet to the north, right where we unloaded. It was bordered by a sandy strip approximately 150 feet wide. Behind the strip of sand next to the shore began a low plateau overgrown with some low bushes parched by the heat.

In diameter the island did not exceed a mile and a half.

On the map there were some marks in red pencil: one was along the

sandy beach, and the others in the interior.

"The stuff we're going to open now, we have to take to these places," said Cookling.

"What is it, some kind of measuring equipment?"

"No," said the engineer; he began to giggle. He had a repugnant habit of giggling if someone didn't know something that he knew.

The third crate was monstrously heavy. I thought that a big machine tool was packed in it. But when the first boards fell away, out of the crate tumbled metal bricks and bars of various sizes and shapes.

"You'd think we were going to play blocks!" I exclaimed, shoving the heavy rectangular, circular and spherical metal castings back.

Crate number four and all the rest up to the ninth turned out to be filled with the same thing — pieces of iron, copper and zinc.

For the next three days Cookling and I carted the metal around the island in the dolly. We distributed the pieces in small piles. Some remained on the ground, others I buried on orders from the engineer. In some of the piles there were metal bars of all sorts, while in others there was just one kind.

When all this had been done, we returned to our tent and went up to the tenth crate.

"Open it, but very carefully," Cookling ordered.

This crate was significantly lighter and smaller than the others. It was tightly packed with sawdust, and in the middle, wrapped in felt and wax paper was a strange-looking device.

At first glance it resembled a large metal child's toy, made in the shape of an ordinary crab. But in addition to six large, jointed claws, it had two more pairs of thin feelers in front, hidden at the ends in an enclosure that looked like the jutting, half-open jaw of some freakish creature. In a recess on the back of the crab glinted a small parabolic mirror of polished metal, with a dark-red crystal in the center. This crab, unlike others, had two pairs of eyes — one in front and one in back.

The crab turned out to be light, not more than seven pounds in weight. It stood quite stable on the sand.

We sat down and stared at the metal monster. I noticed after a couple of minutes that the little mirror on its back was slowly beginning to turn in the direction of the sun.

After a while, the "toy" crawled over to the shore and, with its proboscis lowered, was obviously taking in water. When it had finished drinking, it once again crawled out into the sunshine and froze motionless.

I inched over closer to it and began to look it over.

The back of the crab was semi-cylindrical surface, with flat ends front and back. On the ends were two openings which resembled eyes. This impression was strengthened by the fact that behind the openings, inside the body, gleamed crystals. On the underside of the crab's body a flat platform was visible — its stomach. From within, a little above the level of the platform, three pairs of large, jointed claws and two pairs of small ones stuck out.

It was impossible to see into the interior of the crab.

As I looked at this plaything, I tried to understand why the Admiralty was attaching such importance to it that it would equip a special ship for a trip to an island.

When the sun was so low on the horizon that the shadow from the bushes growing in the distance reached the metal crab, it moved quickly and again crawled out into the sunlight.

But even over there the shadow caught up with it. The crab made its way along the shore, going farther and farther down toward the water. It appeared that, at all costs, it was necessary for it to keep in the rays of the sun.

We got up and went after the slowly moving machine. We went gradually around the island, finally ending up on the western side.

Here, almost on the very edge of the shore, a heap of metal briquets was piled up. When the crab was at a distance of some ten paces from them, it suddenly, as if forgetting about the sun, rushed headlong toward them and came to a stop near one of the copper briquets.

Cookling tapped me on the arm and said:

"Let's go to the tent now. Tomorrow morning should prove to be interesting."

In the tent we silently ate supper, then wrapped ourselves in light flannel blankets. Before going to sleep I heard Cookling turning from side to side, giggling sometimes. *He* knew something no one else knew. And he wasn't talking.

On the following day I went for an early morning swim. The water was warm, and I swam in the sea for a long time, admiring the purple sunrise growing brighter in the East, just above the smooth water barely disturbed by the wide waves. When I returned to our shelter, I saw Cookling in an outcropping of bushes, waving his hand at me.

"Let's go!" he said, puffing like a steam engine. "Quickly! Let's go!"

"Where to?"

"Where we left our little beauty yesterday."

The sun was already up high by the time we spotted the mound of metal briquets. They glinted brightly, and only when I was two steps away did I first notice two thin wisps of bluish smoke rising up. But then . . . there stood *two* crabs, exactly like the one we took out of the crate yesterday.

"Can it be that one of them was hidden by the tools?" I exclaimed.

Cookling squatted down and began to chortle.

"Will you stop grimacing like an idiot!" I shouted. "Where did the second crab come from?"

"It was born! It was born during the night!"

I bit my lip and went up to the crabs. Over their backs rose thin wisps of smoke. Both crabs were busily working, moving their thin front feelers quickly back and forth. The feelers would touch the metal briquets and by creating an electric arc on their surface would cut away chunks of metal. The crabs were

quickly stuffing the metal into their wide jaws. A humming was going on inside the mechanical creatures. From time to time they spit out a shower of sparks from their jaws with a hiss. Then a second pair of feelers would bring out ready made parts. These parts were put together in a set order on a flat platform which gradually moved out from beneath the crab.

On one platform a nearly complete copy of a third crab was already put together, while under the other crab the contours of the mechanism were just starting to appear.

"Why, these creatures are making others similar to themselves!" I cried out.

"Quite true. The sole purpose of this machine is to make machines like itself," said Cookling. "I have created an automatic machine which will wholly reproduce itself. My crab is the model of such a machine."

The jaw of the first crab opened, and out of it rolled a wide band of metal. It covered the entire mechanism put together on the platform, thus forming the back of a third machine. Swift front claws then welded metal ends with openings in them to the front and rear — and a new crab was ready. A metal mirror with a red crystal in the center sparkled in a recess on its back, just as with its brothers.

The "mother" crab brought out the small platform from under its stomach, and its "child" stood on its own feet on the sand. The mirror on its back began slowly to turn around in search of the sun. After a while, the crab started wandering toward the shore and drank its fill of water.

Then it crawled out into the sunlight and began to warm itself up.

While I was looking the new-born thing over, Cookling said:

"Look. Here's a fourth one."

I turned my head and saw that a fourth crab had been born.

During this time the first two continued to stand obliviously next to the heap of metal, cutting off bites and stuffing them inside themselves, repeating what they had done before.

The fourth crab also walked over for a drink of sea water.

"Why the devil are they sucking up water?" I asked.

"They're filling their storage battery. As long as there is sunlight, its energy — which is turned into electricity with the help of the mirror on its back and a silicon battery — is sufficient for it to do its work. The silicon they get from sand under the action of a voltage arc inside themselves. At night the machine is fed by the energy stored by its battery during the day. So they can work on without interruption."

We returned to the tent in the evening, while at the pile of metal there were already six machines at work and two warming up in the sunlight.

"Why is all this necessary?" I asked Cookling at dinner.

"For warfare. Imagine what would happen if someone set such things loose on enemy territory."

"Well, what of it?" I asked and stopped eating.

"We began the evening with one crab. Now there are already eight. Tomorrow there will be sixty-four of

them. The day after tomorrow — five hundred and twelve, and so on, in geometric progression. In ten days there could be more than ten million of them. For this you'd need thirty thousand tons of metal"

These figures struck me dumb.

"These crabs can, in a short time, eat up all the metal an enemy has, all his tanks, cannons, airplanes. All his machine tools, devices, equipment. All the metal on his territory. In a month there wouldn't be a scrap of metal left on the whole earth. It would all go toward the reproduction of these crabs. Notice that during war, metal is the most important strategic material."

"So that's why the Admiralty got interested in your toy!" I whispered.

"Exactly. But this is just the prototype model. I plan to simplify it significantly and speed up the process of reproducing the machines. Speed it up by, let's say, two or three times. Make the construction more stable and hardy. Make them more mobile. Heighten the sensitivity of their metal-deposit indicators. Then, during war my machines will be worse than the plague. I want the enemy to be deprived of his metal potential in seventy-two hours."

"All right. But when these machines have eaten all the metal on the enemy's territory, they'll crawl onto their own!" I exclaimed.

"That's another question. We can code the work of the machines and, knowing that code, we can stop the work as soon as they show up on our territory. By the way, that's one way to transfer all the metal supply of our enemies onto our side."

. . . That night I had nightmares. Metal crabs crawled on me thick as clouds, rustling with their feelers, with thin wisps of bluish smoke rising above their metal bodies.

III

In four days the machines of engineer Cookling had populated the entire island. If one believed his calculations, there were more than four thousand of them. Their bodies, glinting in the sunlight were visible everywhere. When the metal in one pile was gone, they began roaming the island, finding new ones.

Before sunset of the fifth day I was witness to a terrible scene: two crabs were fighting over a piece of zinc.

It was on the southern side of the island, where we had buried some zinc briquets in the sand. The crabs, working in various places, would come running periodically here to make some ordinary zinc part. And then it happened. Toward the pit with the zinc some two dozen crabs came running all at once. Here a real scuffle began. The machines were hindering one another. One crab especially stood out, more nimble than the others; it seemed to be more aggressive and stronger.

Knocking his brothers to one side, he began crawling over their backs, trying to get a chunk of metal from the bottom of the pit. And then, when he had got close to what he wanted, another crab grabbed at the same chunk with his claws. Both machines pulled the briquet in different directions. The one that seemed to me more aggressive finally pulled

the briquet away from his rival. But the opponent would not let him have it for long. Running up from behind, he got up on the machine and stuck its slender feelers into its jaw. The feelers of both crabs intertwined, and they began to lacerate each other with frightful strength!

None of the machines around them paid any attention to this battle to the death going on. I saw how the crab on top was suddenly flipped over on its back, with its stomach up, and how the iron platform fell away, revealing the mechanism of its insides. In that instant its opponent began quickly to tear the rival's body into strips with an electric spark. When the body of the victim fell apart, the conqueror began to pick out levers, gears, wiring . . . and stuff them rapidly into its jaws.

As the parts thus obtained went into the plundering creature, its platform began to move out quickly. On it came a new mechanism in a feverish montage.

A few minutes more, and a new crab dropped from the platform onto the sand.

When I told Cookling about all that I had seen, he merely giggled.

"That's just what we need," he said.

"Why?"

"I told you I want to perfect my machines."

"Well, what of it? Take your diagrams and think how to do it. What's the use of this civil war? This way they're going to start eating each other up!"

"That's just it! The fittest will survive."

I thought for a moment and then objected:

"What does that mean — the fittest? They're all the same. As far as I have understood they reproduce themselves."

"And do you think it's possible to make an absolutely exact copy? You must know that even in the production of ball bearings it's impossible to make two identical spheres — and that's much simpler. Here the producing machine has a follow-up mechanism that compares the copy being made with its own construction. Imagine what would happen if every copy is made, not from an original, but from the preceding copy. In the end, a mechanism can come out not at all like the original."

"But," I objected, "if it's not like the original, that means it won't be performing its basic function, which is to reproduce itself."

"So what? That's very good. More successful copies will use his corpse to make another, living machine. And the successful copies will be precisely those in which the construction characteristics that make them more viable pile up quite by accident. That way stronger, faster and simpler copies have to appear. That's why I do not intend to sit down with diagrams. All I have to do is wait until the crabs eat up all the metal on the island and begin a civil war — eating up one another and reproducing themselves. That's how the machines I need will appear."

That night I sat on the sand in front of the tent for a long time and

looked at the sea as I smoked. Was Cookling undertaking a venture that reeked of serious and unpleasant consequences for humanity? Were we really bringing about, on this lost ocean island, a terrible plague capable of eating up all the metal on earth?

As I sat with such thoughts, some of the metal creatures ran past me. On the run, their mechanisms continued to squeak and work untiringly. One of the crabs bumped directly against me, and I kicked it with my foot in disgust. It turned over helplessly with its stomach up. Almost in an instant two other crabs flew at him, and in the darkness blinding electric sparks began to flash. They were cutting the poor thing into pieces!

I returned to the tent and lay on my bunk.

I succeeded in falling into a heavy sleep for a while. But my awakening was sudden: I felt something cold and heavy crawling along my body. I jumped to my feet. The crab — I didn't catch on right away — disappeared inside the tent. In a few seconds I saw a bright electric spark. It had come to us in search of metal. Its electrode was cutting a can of fresh water!

I shook Cookling and explained to him confusedly what was the matter.

"Get all the cans into the ocean! All provisions and the fresh water into the ocean!" he ordered.

We began to drag the cans toward the ocean and stored them on the sandy bottom, where the water was up to our waist. We took all our tools there as well.

Wet and exhausted after this work,

we sat on the shore right through to morning without sleeping. Cookling was breathing heavily. I now hated him and hoped he would get a worse punishment.

IV

I don't remember how much time had gone by from the time of our arrival on the island, but finally, one fine day, Cookling announced triumphantly:

"The fireworks start now! All the metal has been consumed."

The mechanical crabs were by now sweeping through the island in huge numbers. Their movements became swift and jerky; their storage batteries had been fully charged, and the energy was not being used up on work. They senselessly roamed the shore, crawled around among the bushes on the plateau, bumped into one another — even into us on many occasions.

Observing them, I saw that Cookling was right. The crabs really differed from one another in size, mobility, the size of claws and the size of reproducing jaws. Evidently there were more important differences in their internal structure.

"Well," said Cookling, "it's time for them to begin fighting. Now all we have to do is give them some cobalt. They are built so that even an insignificant amount of this metal lowers, if I may use the term, their mutual respect for one another."

The morning of the following day Cookling and I set out for our "underwater supply area." From the bottom of the water we took the stan-

dard preserved rations, some drinking water and four heavy cobalt bricks, specially stored by the engineer for the decisive stage of the experiment.

When Cookling walked back out onto the sand, his hands raised high with the cobalt bricks in them, several crabs immediately surrounded him. They did not move into the boundary of his shadow, but you could feel that the appearance of the new metal upset them very much. I stood a few feet away from the engineer and observed with surprise how some of the machines were awkwardly trying to jump up.

"There, you see. What a difference in movements! They are really unlike one another. The strongest and most adaptable are going to survive in the civil war we're going to induce in them. They'll have even more perfect offspring."

With these words Cookling tossed the cobalt bricks one by one in the direction of the bushes.

It's hard to describe what followed next.

Immediately several machines flew after the bricks, and as they jostled one another, they began to cut up the bricks with sparks. Others crowded vainly behind, as they too tried to grab a piece of metal for themselves. Some crawled over the backs of their comrades in an attempt to get into the middle.

"Look. There's your first battle!" shouted the engineer joyously.

In a few minutes the place where Cookling had thrown the metal bricks was turned into a frightful battle are-

na, toward which more and more machines came running.

As parts of the dismembered machines and of the cobalt went into the jaws of more and more new machines, they turned into wild and fearless predators, and immediately threw themselves at their kinsmen.

During the first phase of this war, the attackers were those who had eaten the cobalt. They were the ones who cut into pieces the machines which came running from throughout the island in hopes of getting the metal they needed. But as more and more crabs ate the cobalt, the war became more ferocious. Then new machines, made during the fight, began to get into the game.

This was an astonishing generation of machines! They were smaller in size and had tremendous speed of movement. Now they stopped the charging of their storage batteries usual with their predecessors. The solar energy which they had collected with the back mirrors, much bigger than usual, was quite enough. Their aggressiveness was striking. They immediately attacked several crabs, cutting up two or three at once with their sparks.

Cookling stood in the water, and his facial features expressed infinite self-satisfaction. He rubbed his hands and said tensely:

"Good, good! I can imagine what will happen next!"

As for me, I viewed the fight of the machines with deep aversion and fear as I tried to guess what the next mechanical beasts of prey would be like.

Toward noon the entire beach near



our tent was turned into a huge battlefield. Machines came running here from all parts of the island. The war proceeded silently, without cries and shrieks, without rumbling or noise. The crackle of electric sparks and the clatter of metal bodies made a strange accompaniment to the rustling and grinding of the carnage.

Although the greater part of the offspring now on the scene were small in size and highly mobile, new types of machines were still appearing. They were significantly larger in size than the others. Their motions were slow, but you could sense strength in them, and they successfully dealt with the dwarf machines that attacked them.

When the sun began to set, a sharp change was noticeable in the movement of the small machines: they all



crowded onto the western side and began to move more slowly.

"Damn! This whole bunch is doomed," said Cookling in a rasping voice. "They have no storage batteries. Once the sun has set, that's the end of them.

Sure enough, as soon as the shadows from the bushes extended far enough to cover a big crowd of the small machines, they instantly died. Now there was no longer an army of small, aggressive predators. It was a huge pile of dead metal cans.

Enormous crabs, almost human in size, slowly crawled toward them and began to devour them one after another. On the platforms of the giant parents the contours appeared of still larger offspring.

Cookling's face clouded over. He obviously didn't care for that kind of

evolution. Slow, big-size crabs were too poor a diversionary weapon for the enemy rear!

While the giant crabs were dealing with the small generation, a temporary calm settled on the beach.

I walked out of the water. The engineer silently wandered after me. We went over to the eastern side of the island to rest a little.

I was very tired and fell asleep almost instantly as I stretched out on the soft warm sand.

V

A wild scream woke me up in the middle of the night. When I jumped to my feet, I saw nothing except a grayish strip of sandy beach and ocean that blended in with the black, starry sky.

Once more the scream rang out from the direction of the bushes, but not so loud. Only now did I notice that Cookling was not next to me. I began to run in the direction from which he seemed to be screaming.

The ocean, as always, was very calm, and small waves rolled onto the sand at distant intervals with a barely audible rustle. But the surface of the ocean in the place where we had transferred our supplies of food and containers of drinking water seemed disturbed. Something was splashing and making a sucking noise there.

"Cookling, what are you doing? Where are you?" I cried, approaching our submerged storage area.

"I'm over here!" I heard a voice from somewhere on the right. "I'm standing up to my neck in water. Come toward me."

I went into the water and stumbled over something hard. It turned out to be a huge crab standing deep in the water on long claws.

"Why did you go in so deep? What are you doing there?" I asked.

"They were chasing after me, and they chased me all the way here!" whined the fat man.

"Who was chasing you?"

"The crabs."

"Impossible! Look, they're not chasing after me!"

I stumbled over the machine in the water again, went around it and finally ended up alongside the engineer. He really was up to his neck in water.

"Tell me. What's going on?"

"I don't understand myself," he pronounced in a shaky voice. "As I was sleeping, suddenly one of the machines attacked me. I thought it was an accident. I moved aside, but again it started to come near me and touched my face with its claw. Then I got up and moved to one side. It came after me. I began to run. The crab was after me. Another one joined it — then some more — a whole crowd. Then they chased me here."

"That's strange. It never happened before," I said. "If they developed a man-hating instinct as a result of evolution, then they wouldn't spare me either."

"I don't know," rasped Cookling. "Only I'm afraid to go onto the shore."

"Nonsense," I said and took him by the hand. "Let's walk along the shore together. I'll protect you."

"How?"

"We'll go right now to the stores, and I'll get a heavy object. Like a hammer."

"Only nothing metal," begged the engineer. "Better take a board from a crate, or anything wooden."

We slowly wandered along the shore. When we reached the stores I left the engineer alone and went near the shore.

Loud splashing of water and a familiar humming of machines was audible. The metal creatures were opening and devouring the cans of preserved food. They had found our submerged reserves.

"Cookling, we're done for!" I shouted. "They've eaten all our canned food."

"They have?" he whined. "What are we going to do now?"

"You figure out what to do now. This is all your stupid doing. You came up with the kind of diversionary weapon that pleases you. Now you do something about it."

I walked around the crowd of machines and finally came out on dry land.

Here, in the darkness, crawling among the crabs, I gathered pieces of meat on the sand by touch, along with canned pineapple, apples and some other food. I carried it over to the sand plateau. Judging by how much had been dropped on the shore, it was obvious that, while we slept, these creatures had done good work. I did not discover a single unopened can.

We left the place of battle and went over to the opposite side of the island. Cookling was shivering so much from the many hours of stand-

ing in the ocean that he lay down on his back with his teeth chattering and asked me to bury him in warm sand.

After this I returned to our original shelter to get some clothing and what was left of our provisions. Only then did I discover that the tent had been destroyed: the iron chains that had been driven into the sand had disappeared, as well as the metal grommets used for rope attachments on the edges of the tarpaulin. Underneath the tarpaulin I found Cookling's clothing and mine. Here you could notice the traces of the work the crabs had done in searching for metal. The metal hooks, buttons and buckles had disappeared. Bits of scorched material remained in their place.

Meanwhile the battle of the machines had moved from the shore to the interior of the island. When I got up on the plateau I saw that almost in the middle of the island, among the bushes, several of the monsters were rising up on large claws almost the size of a man. They slowly split off in pairs to one side and then went at each without wasting any time.

But I had had enough of these scenes of fighting among crazed machines, and so I loaded myself up with everything I could gather at the site of our old camp and made my way back to Cookling. The sun burned down mercilessly. Before I reached the spot where I had buried the engineer in the sand, I waded into the water several times. I had time to think over all that had happened.

One thing was clear: the Admiralty's calculations about evolution had

clearly gone awry. Instead of perfected miniature devices, clumsy mechanical giants of tremendous strength and slow movements were born. From the military point of view they were worthless.

I had already neared the sand hill where Cookling was sleeping, exhausted by his night-long swim, when a huge crab appeared at the side of the plateau.

It was bigger in size than me, with large and massive claws. It moved with uneven jerks; its body was strangely bent. The front feelers were amazingly long and dragged along the sand. Its jaws were especially overdeveloped. They made up almost half of its body.

The "ichthyosaur," as I named it, crawled awkwardly down to the shore and began to turn its body slowly in all directions as if surveying the place. I mechanically waved the tent tarpaulin in its direction. But it paid no attention to me and instead made a wide arc in a strange sideways manner and began approaching the sand hill where Cookling was sleeping.

If I had guessed that the monster would head for the engineer I would have immediately gone to help him. But its path of movement was so irregular that it seemed to me at first it was moving toward the water. Only when it touched the water with its claws, turned sharply and quickly moved toward the engineer, did I drop my load and run forward.

The "ichthyosaur" stopped above Cookling and bent slightly down.

I noticed how the ends of its long

feelers were moving in the sand, right near the engineer's face.

In the next instant, where there just had been a sand hill there suddenly rose up a cloud of dust. Cookling jumped to his feet as if stung and tore himself in a panic away from the monster. But it was too late.

The slender feelers wrapped solidly around the engineer's fat neck and lifted him up toward the jaws of the machine. Cookling was suspended helplessly in the air.

Although I hated him with all my might, still I could not allow him to die in a fight with some mindless metal vermin. Without thinking I grabbed the crab's large claws and pulled them as hard as I could. But they were like steel pipes driven deep into the ground.

Lifting myself up, I got up on its back. For a moment my face was level with Cookling's distorted face. "Teeth!" flashed through my consciousness. "He has metal teeth!"

I struck with all my might on the parabolic mirror, shining in the sun.

The crab turned around in one place. Cookling's face, turned blue and with eyes bulging out, was level with the crab's jaws. Then an electrical spark leaped onto the forehead and temples of the engineer. The crab's feelers suddenly opened up, and the heavy unconscious body of the originator of this metal plague crashed to the sand.

VI

While I was burying Cookling, several huge crabs moved around the island chasing one an-

other. They paid no attention to me.

I wrapped Cookling in the tent tarpaulin and buried him in the middle of the island, in a shallow sand pit. I buried him without any regrets.

I do not know how long I lay on the shore, looking for hours at the horizon in the direction from which the *Bluebird* was supposed to appear.

Hungry and tortured by thirst, I thought how, in our time, there are many intelligent people wasting their intellect in order to do base things to other men. Cookling's invention could have certainly been used for noble purposes, such as the search for metal. The evolution of these creatures could have been directed toward this. I came to the conclusion that by perfecting the machine in this way it would not have degenerated into a giant thing that could not be turned back

At one point a large circular shadow came at me. I raised my head with difficulty and looked at what was shielding me from the sun. It turned out that I was lying between the claws of a monster-sized crab; it went up to the shore and seemed to be looking at the horizon and waiting for something.

After that I began to have hallucinations. In my feverish brain the giant crab turned into a high raised tank of fresh water, and I could not get to the top of it no matter what.

I regained consciousness aboard the Schooner. When Captain Gayle asked me if it was necessary to take on board the strange huge machine which had collapsed on the shore. I said there was no need to do so.

END



“Are you afraid?”

“Afraid?”

“Of the dogs out there.”

“No. Not any longer.” The smile on the girl’s face was unpleasant. The hunchback bent down toward the dancing red flames of the fireplace and was silent, half closing his eyes while he contemplated the fire.

“The dogs. The dogs.” The old man was mumbling in the dark corner of the room, his blind white eyes fixed on the girl. “The dogs . . .”

“They aren’t yours, are they?”

“They could have been.”

“Did they run away?”

“Run away? Yeah.” A toothless

mouth curled slightly in the darkness.

“Do they live alone?”

“Alone? Can an animal have company?”

“Can a man?”

A man! Maybe their subconscious smiled at the absent-minded words of a weary old man.

“I meant . . .” The slim, bloodless hand of the hunchback tightened around the poker. The fire revived and danced.

“What were you looking for in the wind?”

“Solitude. And maybe something else.”

"Then we are not alone. Didn't you hear it?"

"What? That moan?"

"Yes. The second room."

"Room?"

"Yes. There are two rooms, beyond that window there."

The girl smiled again. The hunchback looked away from the window, on the other side of which were the howling dogs and the wind and the men.

"There is another room, over there. She calls it the world. Where there is whimpering, and howling, and weeping in the endless wind."

The old man stirred. The girl looked at his pale face with the deep lines on it, the blind eyes, the gray hair coming down to the shoulders, the shadows on the bare walls behind him, and looked away, softly shuddering.

"Are you cold?"

"Cold? No, I am not cold."

"Don't you want to sleep?"

"No. The night is not for sleeping. I don't think you can sleep while the wind whispers its secrets in the dark. No one could. We've never slept."

"If you fear death you can sleep."

"I love death."

The clock struck one, a deep, dark sound. Then it was silent, rhythmically ticking on into nothingness.

"There is no sleep for me. No dreams. No nightmares. But for you it is different. You were born here, weren't you?"

"Who can say where he was born?" The girl smiled and shook her head.

"How long have you been here?"

"A long time. Much too long."

The girl got up and approached the window. The wooden floor was warm under her bare feet. She looked through the window panes to see far-away branches dancing in the wind, dim moonlight shaken by nonexistent things. A sound of howling penetrated from outside. "The other room," she whispered.

"You lived in it, didn't you?"

Silence.

"You come from over there."

No answer. The hunchback looked sharply at her, while the girl bent down her head.

"I never thought like them," she said. "You want to throw me out, isn't it so?"

"We never throw anybody out. How could we? But you can't stay with us forever."

"Why not?"

The hunchback gave a quick glance to the old man, who stirred in the armchair, covering his eyes with his hands. "She wants to know why, old man."

"She must find the answer by herself," said the old man.

The girl's eyes were two black pearls, in which danced the red sparks of an old fire, colder than the wind.

"I can't stand it out there any longer."

"Couldn't you?"

"Absolutely not! They won, do you understand?"

The intensity of the howls rose, while the wind made the whole little house shake and creak. "If they hadn't won," she said, "I wouldn't be here."

"But how then did they win?"
"With ignorance, stupidity, obtusity. And pain." The girl stared at the fire. "Don't you hear how they are howling?"

"They are dogs."

"No."

The hunchback growled, "They aren't dogs, old man. There is no place for her outside, I see that now. They would rip her to pieces because she does not fear them."

"So it is all over."

"For them, yes. Not for us. Did you ever love them?"

The girl shook her head. "No."

"Do you hate anything?"

"Yes."

"Then don't ask why others hate." The hunchback shook his head, staring emptily into the dying embers. "They are howling out there," he said. "And they are weeping. Whimpering."

The old man laughed. It sounded like a sob. "They have been doing nothing else," he said. "Especially when the moon was high in the sky."

"Not only then. It was by day that you really saw them."

"Don't speak of the day! Not ever, do you understand? Never."


Silently they all stood at the window, looking at the vague shadows moving among the black trees. In silence they contemplated what was left of the human race, softly shivering every time a heartrending faraway howl ripped through the darkness and the wind.

Then they closed the shutters and sat down, waiting for eternity, and they never wept.

END

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HEROIC SYMPHONY

by G. ALTOW

Translated by George T. Zebrowski

Stars shone above the lake. The old man looked at them for a long time.

"The stars are different here in the mountains — like the dim lights in an empty auditorium. People have left these mountains but the stars continue to shine."

The old man's companion appeared young enough to be his grandson. As if to shake off the old man's mood he said, "This weather is going to hold. That means we'll see the ship as it comes in." He looked up at the sky and added, "I hope it holds."

The two were silent.

The old man thought of the similarities of humanity's achievements to his own life. Machines, cities, books — they all grow old, sometimes rapidly and sometimes slowly — they all go through their period of fame and attention and then obscurity. But on the other hand, he thought, arguing against himself, ideas — universal ideas and experiences will last, and

have lasted. For example, music. At that point his thoughts returned, through various channels, to the music he had known. He still remembered Borodin's symphony, and it played to him across a space of forty years.

He became young again, and this forgotten mountain spaceport became young also. Here in the Buzdag area of the Caucasus mountains men had carved out a huge lake and filled it with water. Around it they had built a granite floor, and on it hundreds of buildings had been built. From this spaceport the ion-driven star probes departed for the small points of light, and after many years returned to this same port. Some never came back: for every seventy only fifty-four returned. After all, they were computer-piloted and were not expected to get themselves out of unforeseen difficulties. The fifty-fifth of this particular series was due to return this evening. The ship had left

for the star Van Maanena forty years ago and was now returning to the earth.

The young man was aware of these events only through historical records, as he had been born when this spaceport was already unimportant and rapidly being forgotten. Even the ion rocket was outdated. Landing on the earth by one of the interplanetary ships was unthinkable and unnecessary. The many mountain ports had become deserted, except on the few occasions when someone would be sent to greet one of the automatic probes. The return of a probe had become an unimportant ceremony.

This had not always been the case. At first each return had been a world-wide event, but new exploratory methods, thermorockets, partial control of gravity and diffraction telescopes yielded much more knowledge than the older instruments and probes, which were so hopelessly aged, graceless and funny in the eyes of the people of the twenty-first century.

Three years had passed since the last probe had returned. The young man had been sent to meet the fifty-fifth. He brought the installations into some kind of working order, checked all of the tracking instruments and was bored the rest of the time.

In the daytime he would venture into the surrounding mountains. By night he would read. The reading amused him, because he was used to microfilm projectors, and the old, heavy books made him keenly aware

of the past. The twentieth century had been a romantic age, containing wars and intrigues; it had been a naive hundred years, filled with heroes.

When the old fellow had arrived one evening, the young man had not been greatly surprised. The old man represented a good share of the last century. He had built the first of the interstellar probes, had invented the drive that replaced them. Now a mountain range on Mercury bore his name, as did a number of other natural wonders within the Solar System. The young man had known this aged person only from his schoolbooks. His boyhood memories of the man leapt suddenly into his mind and he remembered entire sets of details about him. He knew the man's birthdate, his expeditions, his discoveries and his theoretical works, including the most recent, a paper on the internal structure of stars. He had thought the old man to be made of the same material as the mountains out of which the port had been built. He was mistaken.

A cold wind blew from the mountains as a fog formed over the lake. The lake was heated by a small reactor and never froze, even during the harshest winter weather. The black water splashed over onto the granite pavement where the two men were walking. The billowing fog vapors reflected the port lights which were trained on the area of the lake.

The old man paid no attention to the wind and did not bother raising his coat collar. He listened to the splashing of the water as Borodin's

symphony played in his memory. The sound came from inside his mind, he knew, but he thought that he heard it from outside. His companion hid his hands inside his pockets and occasionally looked up at the sky. Suddenly the old man stopped and looked at his timer.

"There are only about forty minutes left," said the young man. "I'd better go turn on the directional beam."

He felt rather uneasy in the old man's presence and longed to return to the warm, lighted landing control room.

The old man looked at him solemnly. "Go on. I'll stay here. By the way, do you have a phonograph here?"

"A what?" The young man smiled.

"Something to play music on."

"We have a magnetophone."

The old man nodded. "That's what I had in mind. See if you can find me Borodin's second symphony. I'd like to hear it again — you can go now."

The old man continued to walk around the lake, pausing frequently. His eyes were still good and he saw well in the dark. Beyond the circle of the port lights he sensed the presence of the large mountains, worn and old. He saw the aged trees, bare in the winter, planted in rows along the granite shore.

Old age, he thought sadly. Here everything is old — the mountains, the starport and myself. He thought of his own figure, tall, thin, slightly bent over with long graying hair.

Old age, he thought again. Then, I was only thirty

He looked out across the lake, trying to see through the fog. His thoughts hid themselves in it, vague, half-remembered thoughts which ran through his mind as if they were underground streams.

He became very still and composed himself. Even when he had been young, people had regarded him as a very sane and dry character. He had always analyzed all problems in a logical manner. To those who did not know him, these traits had inevitably blotted out his other qualities.

He continued to stare into the fog, trying to remember the events of his youth, attempting to recall everything, but he did not succeed. His stream of consciousness broke every now and then, revealing gaps in which only faint and undefined images showed themselves. Suddenly, to his surprise, he remembered the jacket she had worn that night, a blue jacket with foglights and seagulls printed on it — but that had been somewhere else. I was speaking, he thought, and then we walked over to a bench.

He walked off the granite pavement around the lake. Looking around he saw no bench, but he knew that it was here. He bent down and saw the marks in the asphalt left by the bench. He smiled and touched it. Some brown and faded dry grass was struggling to grow from the cracks.

He tried to remember the words he had spoken that evening, but could not. He could not even remember her answer. He remembered only that someone had been playing the second symphony. Words were clumsy and unimportant anyway, but the memory of the music remained.

On every anniversary from then on they had listened to it, every year, whether he had been on Earth or not, for thirty years. Then she had died, leaving him alone.

He touched the faded grass. Somewhere above him a boom sounded and then faded away. The music inside him seemed to grow louder, drowning out the sounds of the wind, the splashing of water against the pavement and the sounds of the night. He stood still, stared into space, heard a triumphant march, saw a flash of lightning and a few fading memories. The music became gentle and formed a barrier around his consciousness. The memories were rapidly dying and were replaced by calm and peace.

The old man closed his eyes, feeling slightly dizzy. The music, like wine, brought both happiness and sadness and washed away the residue of the past from his heart.

Someone touched his arm. He opened his eyes. Before him stood a young man.

"The starship."

The old man did not answer. The other man repeated, "The starship, sir."

He turned to the lake. There was a vibration in the cold and moist air. The wind seemed to quicken. Waves flowed over the granite walk, and spilled back into the lake.

High over the valley, two yellow points of light appeared in the sky. They threw a ghostly light over the landing area, blotting out the light from even the brightest stars. The starship descended rapidly. The computers regulated the ion-pulse drive,

correcting, cutting and correcting again. The searchlights went on as the two men quickly shielded their eyes. The cosmic probe began to ride her jets, illuminated from six directions by the port lights. Inside the mind of the old man, the music stopped.

The older man saw the ship as it had looked forty years ago. Since then there had been many changes, but the ship remained the same. Its cone lights mingled with searchlights, and beneath it a shaft of fire burned. Every few seconds there was a screeching sound as if the engines were on the verge of exploding.

The younger man smiled to himself. The outmoded construction of the rocket seemed funny to him, and the ship itself was so small, only sixty meters tall and three in diameter. Compared with the present-day starships, powered by drives capable of tens of light-years in range, it seemed like a lifeboat. It must have been difficult for it to leave the earth. The screeching landing jets were indeed primitive compared to the cold monotone of a star drive.

"What a clumsy vehicle," said the young man.

"Yes," said the old man. "But these ships had one advantage. They could last for many years in space. Our starships are still limited by the distances they can travel. These unmanned probes have seen a lot." An advantage of age, he thought to himself.

The cosmic probe seemed suspended at five hundred feet above the lake. The water glowed red and rippled from the exhaust of the fierce

jets. The jet were cut off, and the probe hit the water. Water flowed away from the ship in waves, and the two men stepped back as the waves hit the granite walk.

For a few moments the rocket was submerged. Then it surfaced and rocked back and forth like a piece of cork, floating on its side.

"Good!" shouted the young man. "Now the robot unit should detach itself."

"Not so fast," said the old man, smiling. "That's an old ship. It might not work. It was built in the twentieth century, you know."

But the wet surface of the rocket was illuminated by the searchlights, the two men could see a small vehicle detach itself from the side of the rocket and head for shore. Although the robots were programmed to approach the body heat of human beings, this small vehicle was moving away from the two men standing by the lake.

"What's wrong with it?" asked the young man.

The old man shrugged his shoulders. "Probably landed on an alien planet," he said, chuckling softly.

"So what does that mean?" the younger man inquired, looking after the turtle-like vehicle which still moved slowly away from the men.

"It might be contaminated by alien organisms," said the old man.

"But the probe has facilities . . ."

"Yes, but remember its age."

The young man became silent and raised the collar of his jacket against the cold.

"Let's go," said the old man. "The

robot's heading for the hangar." The young man was about to protest, but he checked himself. The old guy had built the rocket. He should know what it was going to do. The young man began to think that the older man could feel his contempt for the mechanisms of the ship. As if to apologize, he said, "It was a nice idea to build the robot as an amphibious sled."

"No," the old man said curtly, "the robot is clumsy." He too felt a slight contempt for the mechanism that he had built in his youth. "We had a lot of trouble with these robots," he continued. "They had to be able to travel over the roughest terrain imaginable. Some moron built a robot that was manlike. What nonsense! Why should we duplicate all of man's bodily defects? The results were disastrous. Finally we built this sled-amphibian and yet it still doesn't solve all the problems. They can sink into bogs, fall over cliffs and get tangled up in dense vegetation. I'm surprised so many get back. Later models had fan-jet skirts to enable them to skip over the ground." The old man paused and smiled. "We thought that was the finest refinement possible. Within twenty years we discovered the power of photon beams and partial anti-gravity."

The two walked up a narrow flight of metal stairs and into the hangar which was set into the side of a cliff. They found some chairs and sat down to wait for the robot. The young man turned on some heat fans.

The old man sat with his face hidden inside his jacket collar. He must

be quite old, thought the young man. No, not old. Just wise. The young man was not one for poetic language, but the old fellow had an innate greatness which made him a giant.

"I'll get some coffee."

"Thanks," the old man whispered. Somewhere inside the hangar he could hear the generators that supplied the electricity for the lights. He thought of another evening in this hangar many years ago. They had all been sitting around the robot, six of them. They had been silent. The robot had been ready to leave. The old man knew that those others no longer existed except in his own memory and in the memory of their friends. They had been intelligent and brave, good friends; there were mountains on Mercury which bore their names alongside of his. He felt no sorrow. Age had given him peace, and he remembered those men calmly as if he were reading the biographies of interesting, unusual people. Those times would never return, and at present he was concerned with something else. Tomorrow he would board a new type of interstellar ship, to go to that star from which this ancient probe had just returned.

He did not have to come to this old port to find out what the probe had discovered; the information could have been relayed to him aboard the new ship. But he had wished to breathe the air of his youth. He had not told anyone that he was coming here. All last evening the Heroic Symphony had played in his mind, and he had known that he would have to come here.

Only very strong men can be confronted directly with their youth, shrug and go on their way. Cowards avoid such encounters; men of integrity grow stronger through them. The old man still had a clear mind and a strong will.

The younger man returned with coffee. The old man took off his jacket and drank the warm liquid silently. As he drank, he looked into the cup intently; the black liquid reminded him of the artificial lake, from which the probes started on their long journeys. His thoughts returned to the rocket which had just returned, and he speculated that perhaps this time the probe had brought back some highly interesting information. Van Maanena, he mused, what if my suspicions are correct?

"Did you say something?" asked the younger one nervously. The old man looked at him, and in the old eyes there was a hint of remoteness.

"Do you like surprises?" the old man asked.

"Sure!" The young man's voice echoed throughout the hangar.

Good fellow, thought the old man. He reminds me of . . . he thought of one of his old friends.

"We'll have plenty of surprises tonight," he said.

"If you know of any —"

"I'm sure they await us," the old man interrupted. "I just don't know their nature."

He wanted to add something else, but he did not have time. The noise inside the hangar grew louder, and below them the robot rolled in through the side door. The old man put down his coffee cup. With a

deafening noise from its motors the robot slid towards the center of the floor, where it stopped. The noise then died away.

The two men looked at the machine that had voyaged to Earth from an alien world. Written on the side of the large machine were the letters CCCP and the date of departure. The younger man read out the full words of the large letters.

"Then it was still Socialist," said the old man. "Six years later, that word was replaced by Communist, to read Union of Soviet Communist Republics."

"That was twelve years before my time," the young one said quietly. He went down to the turtle-like robot, and touched the letters. Then he circled around the machine.

"Look here!" he shouted suddenly. "I don't understand . . . something else is written here!"

The old man got up and turned on the center floor light. In a moment's time, they were both looking at the writing:

PEOPLE OF THE EARTH,
WE

The youth looked at the writing and then at the old man. He could not stand the silence and finally said, "That . . . was done out there." His voice quivered. "There is some kind of intelligence on that planet."

"Intelligence," mumbled the old man. "Much too weak a term. Extraordinary intelligence. We do have a puzzle here."

"What do you mean?" asked the youth impatiently.

"They didn't finish their message. Look, here is the beginning of a new letter."

"What puzzle . . . what do you mean? What are you talking about?" The slowness with which the old man examined the robot irritated him. The old man then returned to his chair.

"That probe reached the star Van Maanena." He spoke softly and haltingly as if thinking out loud. "We know that the star has only one planet. The probe must have orbited the world for a short time, during which the probe carried out its observations with the instruments on board. Then with the help of the retros the robot was released. The robot was programmed to spend fifty hours on the surface, and if it did not return during that time the probe was to return without it. Do you understand? In a space of fifty hours these intelligences were able to familiarize themselves with the construction of this robot, and in terms of that they learned our language."

"That's impossible."

The old man shrugged. "Look at the writing carefully. Notice that not one detail is missing in the letters. They look exactly like our own print. The beings who did this didn't know about word abbreviations. They copied everything exactly from the writing on our instruments."

"But the robot also has a sound-tape," said the young man. "Why didn't they . . . don't tell me we'll hear them if we play it back?"

"No, not strictly speaking. We'll hear the voice of the robot. The probe did not have facilities to tape sound from the outside. What you called

a sound tape is just a tape to record electrical data. It could be used for voice, but that is not how the robot was made to work. The voice we hear will be that of the robot's machinery, but the message will come from elsewhere."

"What's the puzzle you have in mind?"

"They seem very advanced, perhaps millions of years ahead of us, to have done what they did to our probe inside of fifty hours. I wonder why they never visited us."

Bent over and silent, the old man sat in his chair. He looked frightened. The young man crossed and recrossed his legs nervously. He was impatient to open the robot; but the old man was silent while thinking. The younger man did not have the courage to interrupt him, and he realized that he didn't understand the old fellow very well. Why did he sit there thinking when it would be much easier to open the probe and find out? If he were in his place he would do it immediately. Why was the old guy delaying? Perhaps he's afraid of being wrong

The old man sat, resembling a chess player in his pose, trying to deduce new information from the data. Suddenly everything came clear to him, and his thoughts abruptly stopped.

"They're coming here!" he shouted and jumped from his chair. "It's more than certain . . . they're on their way!"

The young man was startled. He had thought that the use of logic could do many things, but he doubted

that such a far-reaching conclusion could be reached from such meager evidence.

"Get me a magnifying eyepiece," the old man ordered. He walked up to the robot as he said it. The young man gave him a helpless look. He did not know if such equipment was still to be found in this old port. "I said get me an eyepiece! And quickly," he added.

The younger man finally found an eyepiece in one of the wall cabinets; the old man carefully examined the outer surface of the robot.

"An excellent machine," he whispered to himself. "Nowhere is the metal fused or melted very much." He threw the eyepiece on the chair, and walked to one corner of the small hangar and back. The young man watched him pace back and forth, wondering at the brisk, sure step that still had so much youth in it. The old man finally stopped at the chair.

"Open the robot," he ordered solemnly.

While the younger man worked on the outer case, the old man sat in the chair playing with the eyepiece, and occasionally smiling to himself. At last something snapped and the casing came loose.

"Check if the inner bolts are there."

"There aren't any."

"Hmmpfh!" mumbled the old man, satisfied. "That means they took the entire machine apart." His face became drawn. "Are there any signs of great heat?"

"Heat?" asked the youth, surprised. "Of course not, but —"

"Because," said the old man em-

phatically, "this robot has come back from an anti-matter world. That's right, I know, don't interrupt me! The star Van Maazena has one planet, and the beings who live there live in a world of anti-matter. The same atoms, but instead of electrons, positrons, protons, neutrons, mesons — anti-protons, anti-neutrons, anti-mesons."

"The robot would have been destroyed if it had come into contact with anti-matter," the young man protested. "The entire probe would have been turned to energy." The old man smiled.

"You know your physics, but you forget for the moment about the philosophy of science. Knowledge expands, and the beings of that world have gone much further than we have. They have learned how to take precautions against the consequences of the meeting of matter and anti-matter. This they accomplished recently."

"Why recently?"

"Recently because previously they could not visit the earth. They would have if they could."

The young man felt nervous, and looked at the old man as he would at a seer.

"Turn on the tape," said the old man in a half-whisper.

The young man pushed the button. They heard an almost silent hiss, followed by the precisely modulated voice of the machine, reporting on its mission: "All of the instruments are turned on. The chemical rocket landing vehicle is detaching itself from the ion rocket vehicle. It is preparing to descend into the planetary atmos-

phere. There is a large concentration of positrons outside."

The voice died away into silence. The tape began to hiss, and in a few moments the voice of the tape returned. "Altitude six thousand kilometers above the planetary surface. The concentration of positrons is increasing rapidly. The entire structure of the vehicle is heating up rapidly. Altitude four thousand kilometers. The atmosphere is made of anti-matter. Return impossible. The stern rockets are not responding properly. Three thousand kilometers. The outside of the vehicle is beginning to melt. The instruments are functioning properly still. In thirty seconds there will be an explosion."

The old man's fingers dug into the armrest of the chair, and he leaned forward. The young man stood by the machine, stunned. The dispassionate voice of the cybernetic apparatus, the sudden quiet, produced a sensation of alien strangeness in the two men.

"Two thousand, seven hundred kilometers," the robot continued. "The entire vehicle is surrounded by a protecting field of some sort. It is magnetic in nature. The temperature rise has stopped. Altitude is decreasing. One thousand five hundred kilometers. The protective field is growing stronger around the vehicle. The temperature is dropping to normal. Everything is functioning satisfactorily. Filming and photographing are impossible at the moment, because the field is not transparent. Only shadows and flashes of light are visible. The cameras are useless. Five

hundred kilometers. An unknown force is directing the vehicle towards the planetary pole"

A long silence followed. The young man leaned over the robot. The long tape was unwinding slowly. The silence was prolonged. A sound like that of a gong was suddenly heard, and the voice of the robot continued, modulated with an almost pedantic precision, pronouncing each word with a sharp resonance. The pauses grew longer between each sentence, and between important words. Somehow the phrasing seemed different, more stilted and tense. The words seemed alien and strange.

"People of the earth. You are young and daring. You have sent out your automatic probe in the belief that the world it would explore would resemble your own. You put your robot into what was once a weapon-delivery vehicle, primitive but capable of remote control. The usefulness of your venture, however, can be realized only if the world the robot is to explore is inhabited by beings on your general level of achievement and has the same biological environment. In terms of probability theory, over one half of the worlds in our galaxy should be inhabited by intelligent beings who are ahead of you. In that case your probe is of little use.

"Such is the present case.

"You could not foresee our environment. To us, your world is made of anti-matter. Your automatic probe almost stopped functioning. Only recently we have learned to preserve anti-matter safely in our world.

"Our science has told us that most of the nearest stars, including your

own system, are made up of anti-matter. Our probes have been going outward for a long time, but never have they been able to land anywhere, or if they did they could never come back. As of now our probes cannot reach beyond to find worlds like ours. We seem to be an exception.

"But anti-matter meteors do bombard our world, and through them we have learned to place a protective field around anti-matter and thus bring them safely to our surface. At first we mistook your probe for a meteor.

"We succeeded in taking apart your probe and in understanding its construction. It was not very complicated, and the process created in us a state of mind for which we could find no word in the robot's vocabulary."

"They are trying to find a word for a humorous situation," said the old man, smiling. "But of course the robot doesn't know nor have need of those words."

"It was not difficult for us," continued the metallic voice, "to take apart a machine made of anti-matter, and to familiarize ourselves with its instruments to the point that it would be possible for us to communicate with you. We had very little time, and it was not possible to do a complete examination. We consider your method of measuring time irrational. A year is one orbit of your star. But why did you divide one axial spin into twenty-four parts, and each part into sixty? We find this without reason, especially when elsewhere you use the tens system. We understood,

however, that your robot must return to the delivery vehicle in fifty of the units that you call hours, and this was enough time for us to form an estimate about your stage of advancement. Our information is quite small, but we decided that your level is, after all, reasonably high, and that it would be worthwhile to send to you a starship expedition. This will be done very shortly. Protected by our magnetic fields we will be able to exist in a world of anti-matter. In addition —"

The voice died. It returned after the sound of some rasping. "People of Earth, your probe must now return to the main rocket. We have done all we can to help it. We repeat —"

Slowly the tape moved on, silently. The voice had died away for good. "End," said the old man leaning on the arm of his chair. "You can turn it off."

The old man closed his eyes and appeared to be thinking. The young man was inwardly very excited. There had never been a moment in his life comparable to this one, and even though others had made the rocket, though an alien voice had spoken, he felt that somehow he had helped to bring these events about. His thoughts raced. Who to tell, who to inform . . . but the old man was silent, and the youth forced himself to remain calm.

The young man waited for the old man to speak. It would not have surprised him very much if the old man suddenly began to speak in the language of an alien world.

The old man opened his eyes and got up. "In the morning, send all the instruments below," he said in a crisp and resonant voice. "All the instruments of the rocket and the robot. I'll relay all the information myself."

"By radio?" the young man asked quickly. The old man looked at him and shook his head.

"No. I'll go in my flier."

"At night?" The youth was troubled. "Over the mountains, in this weather? Call in a larger craft to pick you up!"

"It's not necessary." The old man smiled. "Believe me, nothing will happen to me." The old man's voice carried conviction. The younger man forgot his fears. Nothing would happen to this old fellow.

They walked down a narrow and shaky metal stairway to the floodlit concrete field. The old man raised the collar of his jacket, then looked around and took a deep breath of the cold air.

"Go now," said the old man shaking hands with the young man, who wanted to accompany the older man to his flier, but didn't dare oppose the old man's order. It occurred to him that he was taking on some of the old fellow's mannerisms and was speaking very little and with care.

The old man walked down the dark and dimly lit granite pathway. Weeds were pushing out between the cracks in the pavement. He was smiling at his thoughts as he looked straight ahead. He remembered those who forty years before had helped him launch the rocket probe

from this mountain port, and he silently welcomed the probe back for them as well as for himself.

He stopped by the lake. The wind drove the black waves against the starship's hull, rocking it. The ship reminded him of a whale. He raised his hand slightly, as if to greet a friend. A flimsy, silly, construction, he thought. It must have been difficult out there Then he said farewell to the rocket silently.

He turned to find the place where the bench had been. Yes, it was here, he thought, and he remembered clearly. The words . . . she hadn't said a word, not one word, and he would have remembered. She had put her hand on my chest and said nothing. The music must have distracted her.

He smiled.

Now I will have to change the purpose of the expedition, he thought. It wouldn't make sense to go all the way to Van Maanena. We won't leave the solar system, not yet. They will come to us. We have to wait and see Superior intelligences, so far ahead of us. I'll return to the Earth and here also. Those who leave take a bit of earth with them . . . I'll take some from this place.

He knelt, took out his handker-

chief and carefully gathered a few grains of dirt, a bit of asphalt and concrete and some blades of yellowed grass. Then he got up. Without looking back, he went to his personal flier which was standing on the landing field.

The young man watched through the wide corridor of the main building which overlooked the landing field. He stood before the window, biting his lips, swallowing with some difficulty. The old man vanished down the alley, but the younger man looked toward the lake. The starship looked quite small while bobbing in the lake, like an obsolete weapon, he thought, rusty and bent, long out of use but carried by heroic men.

He found himself remembering the symphony and quickly turned on the magnetophonic tape before turning again to the window.

Above the granite field, above the whistling wind could be heard the resonance of great musical chords. Within the beam of the searchlight the flier could be seen lifting from the field, as if borne by the delicate music.

For a long time the young man continued to look at the sky. END





I woke up a few minutes ago with a severe headache and a sense of impending death. In the next half hour or so, I know, I am going to die. Nothing can now prevent my physical condition from deteriorating rapidly. As I am trying to write as fast as my mind can think — in an attempt to finish my story before I am finished — my breathing is becoming labored, and the pain in my chest is beginning to torture me.

I was perfectly healthy day before yesterday. When, that day, I opened the morning newspaper and read the headlines: "Professor Theta, who disappeared four years ago, returns," I turned pale with fright. What shocked me was his alleged statement that in a day or two he would reverse the "de-aging" process and thus save the human race from annihilation.

At this stage it is necessary to recapitulate Professor Theta's remarkable experiments four years ago, which had a severe repercussion in

the form of de-aging since considered the greatest scourge that had ever befallen the human race.

I first learned about Professor Theta five years ago. (At that time I was suffering from advanced heart disease and was expected to die in a year or two.) To sum up, Professor Theta was the most eccentric person ever allowed to remain outside the lunatic asylum. He was pleased to propound ridiculous theories and in support thereof to contrive and reportedly carry out preposterous experiments. One of his mad theories concerned the origin of matter and energy, based on some experiments involving a series of vacuum tubes one inside another which when left aside exploded. According to Professor Theta nothingness or perfect vacuum is composed of energy and "anti-energy" and sooner or later splits into these integers; energy and anti-energy repel each other, and it is this force of repulsion which is

responsible for the explosion of the vacuum tubes referred to above. The universe was born in two stages. First nothingness split into energy and anti-energy; in the second stage, part of the energy transformed itself into matter of the suns and planets of the cosmos. The force of repulsion between energy and universe on the one hand and anti-energy on the other is responsible for the great speed at which the universe is drifting away in space.

Nobody paid any attention to Professor Theta or his experiments until four years ago when he published a brochure on "The Production of Anti-Atomic Energy." In this booklet he stated that his recent experiments conclusively proved that an Anti-Atomic energy could be produced. The said anti-energy if created would radiate over the earth and above it into atmosphere and space and would nullify (convert into nothingness) the artificially tapped nuclear force as well as make impossible forever the manifestation of such force.

Within a month of the publication of this brochure, industrial and other establishments using atomic power for the production of electricity detected that the power supply had mysteriously failed. Scientists were baffled to discover that suddenly atomic reactors had gone dead and that all the potential nuclear weapons had become lifeless.

For some time every one was astounded with the remarkable effects of Professor Theta's experiments. Many were jubilant that atomic war-

fare became impossible because of his anti-Atomic Energy. From philosophers down to the common man, all alike paid tributes to Professor Theta (though some might not have done so wholeheartedly), and wherever he went he was accorded a hero's reception.

However, it was soon realized that all was not well; suspicions first arose when women in the second and third month of pregnancy began menstruating. Many an adolescent girl complained of cessation of menstruation and reduction in the breast size.

People were horrified to hear of infants growing smaller day by day. And then there were middle-aged persons whose gray hairs were turning black.

My own condition improved remarkably. Pain in chest, engorgement of neck veins and swelling of legs all subsided. I was able to get out of bed. My appetite improved, and I started putting on weight. I felt younger by many years. I also read in newspapers that many persons who were suffering from various diseases of old age were recovering rapidly.

All the above conclusively pointed to the fact that, presumably due to Professor Theta's experiments, time was reversed and a process of de-aging had set in. Under the effect of de-aging people would grow younger and younger until they became premature babies when they would perish from their inability to tolerate the surroundings. Meanwhile, new children would not be born, for although an ovum might get fertilized, it would not grow. In another

sixty or seventy years, persons then aged seventy or less would die, whereas those seventy or more would become children; humanity would soon be wiped out. With the realization of the above mentioned facts a great panic seized the populace.

At about this time Professor Theta went underground, probably for fear of being killed by the masses who were naturally outraged at his experiments which had left humanity at the brink of destruction.

Four years went by. By and by people got accustomed to de-aging. They were mentally prepared to face doomsday. The only consolation was that death would strike them at a time when in the form of babies they would have no capacity of emotionally reacting to the event or to the thought of its approach. On the other hand, there were many like myself, who were extremely pleased with the thought of enjoying another lease of life.

When I read news of Professor Theta's putting an end to de-aging in the newspaper day before yesterday therefore, I was scared. Once de-aging ceases, (and Professor Theta was capable of doing anything), a month-old baby overnight would become a four-year-old boy, a girl of nine years would change to an ado-

lescent of thirteen years, and so on and so forth. Those who would have died during the last four years (if time were not reversed) would suddenly be reduced to corpses in various stages of decomposition corresponding to four minus the years they would have lived in the absence of de-aging. I myself would become an unrecognizable mass of dead tissue in putrefaction for the last three years or so.

As I was scribbling the above, my condition was becoming worse and worse from one line to the next. Swelling of my legs have reappeared. Pain in the chest has increased tremendously. I feel as if I have not eaten for the last several years and as if my weight has considerably gone down. I am now breathing with great difficulty. I can see my finger tips turn bluish and sense their becoming cold.

There is no strength

For a moment my heart had stopped beating, and I had lost consciousness. My head is bleeding from having struck the writing desk. My breathing has become stertorous. My heart is thudding against my chest furiously in a vain attempt to

B. SRIDHAR RAO



From the U.S.S.R.

THE WORLD IN WHICH I DISAPPEARED



by A. DNEPROV

Translated by Mirra Ginsburg

When I was dead, I was sold and brought to Woodrop's house from the morgue. There is nothing strange about this, just as there is nothing strange about my being in the morgue. The simple fact was that I had slashed my veins in my bathroom in the New York Hotel. Were it not for the money I owed the hotel, I would not have been found so soon. Or, rather, I would have been found too late. But I owed a great deal, and it was partly because of my debts that I made the abortive attempt to move on to a better world. I was most impatient to meet my improvident parents and tell them what I thought of them and, generally, of people who breed children for our civilized society.

As I know today, Woodrop bought

me for eighteen dollars and nine cents. Of this sum, three dollars and nine cents were paid for the blanket in which he had wrapped me. So that my net value is fifteen dollars. This is the standard price for a homeless cadaver bought for medical experiments. I am homeless enough to fit into this category. However, there is one point, it seems to me, that the law did not adequately provide for. I think it is unwise to sell cadavers for medical experiments before they have been cooled off for a sufficient period in the refrigerators.

I can imagine the speed at which Woodrop drove me from the morgue to his cottage in Green Valley! If not for this speed, his money would have gone down the drain. Instead of me, he would have gotten a badly

worn blanket, plus the expense of my funeral.

I was revived according to every proper rule of procedure. They gave me a transfusion of three liters of blood and an adrenalin injection, pumped glucose with cod liver oil into me, wrapped me around with a tangle of electric wires and heaters. After awhile Woodrop switched off the current; I began to breathe without outside help, and my heart began to beat as though nothing had ever gone wrong.

I opened my eyes and saw Woodrop and a young woman.

"How do you feel?" asked Woodrop, a character in a white coat, with the face of a man whose hobby was slaughtering cattle.

"Thank you, sir. Very well, sir."

"I am not a sir. I am Woodrop, Harry Woodrop, Doctor of Medicine and Sociology, Honorary Member of the Institute of Radio-Electronics," Harry growled. "Are you hungry?"

I nodded.

"Bring him a plate of soup."

The girl slipped off her chair and disappeared. Harry Woodrop pulled up my shirt without a by-your-leave and injected some chemical into me.

"Now you're completely alive," he said.

"Yes, sir."

"Harry Woodrop."

"Yes, sir, Harry Woodrop."

"I hope your intellectual capacities are not too well developed."

"I hope not."

"Your education?"

"Almost none. I graduated from some sort of a university. But that doesn't mean a thing."

I had decided to myself that Harry would have least need for people with higher education.

"Hm. What did you learn there?"

It seemed to me that I'd do best to disclaim any knowledge.

"Golf, dancing, fishing, running after girls."

"Good. But don't try to apply your skills to Susan."

"Who is that?"

"The girl who went to get your supper."

"It is night already?"

"No, it's already the day before yesterday. And generally, you ask too many questions."

I decided that an ex-corpse should not ask too many questions of Harry Woodrop, M.D., Honorary Member of the Institute of Radio-Electronics, and so forth.

Susan said, "You will take part in the Eldorado Project. Incidentally, what's your name?"

"Harry."

"That's bad. The boss does not like any other Harrys around. You're not mistaken? It happens after death."

"And what is the Eldorado?"

"It is a world of happiness, prosperity and social equilibrium. A world without Communists and unemployment."

"You rattle it off like a TV announcer."

"You have an important role in Eldorado."

"Really? And what is it?"

"You'll be the working class."

"What? Who?"

"Not who, but what. The proletariat."

I thought for a moment, and asked:

"Are you sure I was brought back to life?"

"Quite sure."

"And what will be your role in Eldorado?"

"I will be the manufacturers' association."

Susan went out, and Harry Woodrop came in:

"From now on we shall not feed you."

"Excellent! Are you studying the process of death from starvation?" I asked.

"A stale joke!"

"All the same, what will I eat?"

"You'll have to go to work."

"Do you still have the blanket so I can be taken back?"

"In my highly organized society it won't be any problem to find you work."

"I will have to do a lot of tramping and looking. I won't be able to take it."

"You won't have to go anywhere."

"How then?"

"You will merely have to press a button. When you're hired, you will get wages. And once there are wages, there will be food."

"Take me to that button, quick!"

"Your psychological factor isn't quite ready yet. You will not be able to press the button with sufficient enthusiasm."

"I'll press it with any kind of enthusiasm you say!"

"For the sake of clarity in the experiment, you'll have to go hungry for another hour or two."

"I'll complain!"

"You will not complain, because you do not exist."

"How's that?"

"You are long dead."

The Eldorado consisted of three huge machines standing in different corners of a spacious hall. They were connected by wires and cables. One machine stood behind a glass partition. Harry Woodrop sat down before the control panel in the center of the hall and said:

"Schizophrenics, professors and senators are trying to improve our society with the aid of committees and subcommittees, foundations, voluntary commissions, economic conferences and ministries of social problems. Nonsense! All it takes is four hundred and two triodes, one thousand, five hundred and seventy-five resistors, and two thousand, four hundred and ninety-one condensers, and the whole problem is solved. This is the diagram of our social organization for today."

Harry Woodrop unrolled a blueprint with a diagram before me and Susan.

"On the right is the 'production' block; on the left, the 'consumption' block. Between them we have positive and negative feedback. By switching around the radio tubes and other parts of our 'society,' we can find a way of keeping the system from slipping into either the state of hyper-regeneration or that of damped oscillations. When I achieve this, the problem will be solved once and for all!"

As he explained his brilliant plan, Harry Woodrop waved his arms and

swiveled his head in all directions. It must have been a habit of his.

"But I have taken care of something even more important," he went on. "I brought the human element into the scheme. And since it would be both irrational and too expensive to replace it by an equivalent electronic robot with a limited memory, this will be your function —" Harry pointed at me — "and yours," he said, turning to Susan.

Then he clasped his hands behind his back and walked around the control box four times.

"Here —" he banged his fist on the lid of the box — "is the brain of our 'society' — its 'government.' The neon light above performs the function of a president; in other words, it stabilizes the tension. So!"

We looked tenderly at the "president," who glowed with a rosy light.

"And now to work! You — off to 'production!' And you — to 'consumption.'"

"An original case of electronic modeling fever," I thought. "At the university, the professors used to say that with the help of radio electronics you can build any models you wish: turtles, lathes, interplanetary ships, even a model of man. Harry Woodrop built an electronic model of our state. And he not only built it, but decided to perfect it, to develop a 'harmonious' structure for it. It will be interesting to see where he gets with it."

I went to the machine on the right. Susan disappeared behind the glass screen, in the "consumption" sphere.

"What must I do?" I asked.

"What you did in life. Work."

"Excellent advice! I am as hungry as a hyenal!"

"First you must get work in the 'production sphere.'"

"How?"

"Press the white button on the right."

"What is she going to do?" I nodded in Susan's direction.

"What business does."

I sat motionless before the huge metal case. On its front door glittered the dials of various apparatus; varicolored buttons, switches and levers projected from it everywhere. In this machine, Harry embodied the economic and political structure of the world we live in. Material goods were created here in the form of electric energy and circulated along the leads between the "production sphere" and the "consumption sphere."

I pressed the white button.

"Your occupation?" the machine barked.

"O-ho, just as in life! The machine is even interested in my occupation!" I thought, and answered: "Artist."

"We don't need any."

I looked questioningly at Woodrop.

"Shall I press the white button too?" asked Susan.

"Of course."

"And what will happen?"

"You will receive the surplus value accumulated in the scheme."

Susan's relay clicked.

I pressed the white button again.

"Your occupation?"

"Dentist."

"Don't need any dentists either."

Susan pressed her button again, and the automat issued her a package.

"Occupation?" the machine repeated stupidly.

"Mechanic."

"Come back in a month."

The electronic model of production functioned perfectly. How many times, before I found myself with Woodrop, had I gone out to look for work and heard exactly the same questions and the same answers!

"This won't work, boss," I turned to Woodrop.

"Don't look, I want to put on my new dress," cried Susan.

"Boss, I cannot wait a month!"

"Try again. I've reduced the negative grid bias of 'labor wanted' transmitting tube."

Susan pressed her button, and the machine gave her nothing.

"What's wrong?" she protested.

Harry nodded at me: "When he creates 'surplus value' your automat will switch on again. We have now come to the 'capital accumulation' phase."

I pressed the white button.

"Occupation?"

"Stevedore."

"Hired!"

A lever jumped out of the machine and almost hit me in the stomach.

"Work!" shouted Harry from his control panel.

"How?"

"Push the lever up and down."

I began to push the lever. It moved very stiffly.

"How long do I have to do this?"

"Until you get your wages."

"And how will that happen?"

"Tokens will drop into the box under your nose. You can use them to eat, drink and amuse yourself."

I pushed the lever up and down until my arm ached. I stopped for a moment.

"What are you doing?" shouted Harry.

"I want to take a rest."

"You'll be fired!"

I seized the lever and frantically began to make up for lost time.

In my mind, I tried to visualize the electronic block that could "fire" me. By moving the lever, I thought, I must be creating electrical charges which were relayed to it and kept it in working condition. By stopping, I would bring into action the mechanism which withdrew the lever inside the case.

"Ah, my automat is working again!" cried Susan.

Perspiration dripped from my forehead.

"When do I get my wages, boss?"

Woodrop was busy with the "president." Without looking at me, he muttered:

"I'm watching the apparatus. There must be maximum profits."

"When do I get my tokens?" I repeated.

"When the anode voltage you create in the condenser unlocks the thyatron."

"I'm hungry."

"You work badly. Every swing of the lever produces only one and a half volts. Pump faster."

Susan switched on her automat again. She received a second dress.

"I don't want any more dresses."

"What is it that you want?"

"What you promised. A nylon coat."

"In a moment I'll add more negative voltage from his condenser to your automat."

I knew it! In Woodrop's scheme, the role of capital was played by electric energy. And he was pumping this energy away from my "production sphere" to the "consumption sphere," into the pockets of the "manufacturers' association." The models of the pockets were the condensers and accumulators.

"That's too much! Why the devil must she get everything?"

The automat clicked. Tokens dropped, rattling, into the drawer in front of my sweating nose.

"Collect your wages."

I gathered five copper tokens.

"What am I to do with them?"

"Go to the 'consumption sphere' and use the automat."

I ran behind the screen.

"Ah, the corpse!" Susan cried gaily. "You have to use this automat, next to mine."

I received a bowl of soup, a cold cutlet and a mug of beer.

Thank God for that too!

My first working day was over. Susan went to bed, taking along her heap of rags.

We'll see what happens tomorrow!

When I came to the "production sphere" on the following morning, my lever was not there. Susan sat in an armchair next to the "president," drinking beer.

"What's the matter?" I wondered.

"You are fired," she said grinning,

and nodded at the clock on the wall.

It was five minutes past eight.

"Why was I fired?"

"For lateness. Try to get work again."

"Where did you get the beer?"

"I used your tokens. They are mine now."

I had never seen such brazenness before!

"Occupation?" asked the machine.

"Stevedore," I replied without thinking.

"Unfavorable references," said the machine and was silent.

The machine, it turned out, possessed a memory! It took note of my dismissal for lateness. Again everything was just as in real life. Perhaps there was really some sense in these electronic models of economic and social structures? And yet, I could not agree that such an extremely complex phenomenon as the social life of millions of living human beings could be expressed with sufficient exactness in terms of radio tubes, transistors, resistors and relays.

I wondered what I could do next. My eyes fell on the electronic brain. If it concentrated within itself all the direction of the electronic model, why not try to "improve" it in my own way?

"You're not a tattletale, are you?" I asked Susan.

"Why?"

"I want to try to improve 'society'."

"Go ahead."

I went over to the control board and turned a handle at random. Then another, and a third. There were nearly a hundred of them there. The

machine roared madly. The "president," who had emitted a faint glow until then, flared up like a wax candle. In the hope of making my lever reappear, I pulled the "president" out of his socket and hid him in my pocket. At that moment Woodrop entered.

"Ah, a mutiny! That's good! An attempt against the government? Marvelous! And where is the voltage equalizer? Liquidation of the supreme authority? Excellent! Return the 'president,' if you please."

I returned the neon tube.

"We shall provide for this human element too. I shall screen off the government and protect it with a high voltage line. Two thousand volts will do. We shall put the 'president' under a bell and protect him with a five-thousand volt line. This way. Now the government will be secure against domestic disorders."

I was totally annihilated. Harry Woodrop connected high-tension lines to the electronic brain.

"Give me any kind of work," I pleaded.

"Try again now, before I restore all the potentiometers to their previous positions."

I pressed the "labor wanted" button. The loud speaker suddenly sang out in the voice of a well-known radio star. "How happily you died in my pale-blue embrace . . ." Not one, but three levers came out all at once from the machine and began to rock up and down without any external help. Tokens poured into the drawer as from a horn of plenty!

"What luck, boss! I think we're

really getting to Eldorado!" I exclaimed, gathering up the copper discs.

"Like hell," Harry grunted. "There is nothing in the consumption sphere. It's empty."

I rushed behind the partition and slipped a token into the automat. No reaction. Another. Silence.

"Mm-yes. Production has simply gone crazy."

Harry Woodrop's electronics evidently functioned only in a strictly delimited manner. The production and consumption models balanced themselves at a point of unstable equilibrium. The moment the machine's regime was disturbed, it went insane. It turned into a senseless cluster of radio schemes, which worked without rhyme or reason.

Harry set the potentiometers, and all the levers but one disappeared into the machine. The tenor changed to a contralto, then to a coloratura soprano, and fell silent on a "mi." I seized the remaining lever and energetically began to swing it to reestablish my reputation.

"Give me back the tokens," said Harry.

"Why?"

"You got them for nothing. That's improper."

"And why does she get everything for nothing?" I pointed at Susan, who had fallen asleep in the armchair.

"Don't ask stupid questions and give me the tokens."

Nevertheless, I managed to secrete two tokens.

Susan slept through the entire working day, and by evening I had earned another seven tokens. Wood-

rop in the meantime had secured the "government" from further attack and had twice drawn away the energy from my condenser. Generally, he fussed over his machine with great zeal. Afterwards, Susan told me that Harry had gotten a large grant for his Eldorado project.

Now I was more prudent and spent only two tokens for food. It left me half-hungry, but I realized that I had to think of a rainy day.

Next morning I found Susan red-eyed.

"What's the 'Manufacturers' Association' bawling about?" I asked maliciously.

I had come to work early. The clinking of tokens in my pockets put me in a good mood.

"Disgusting!" said Susan.

"What?"

"He took everything away. The dress, the undies, the coat."

"Who?"

"Woodrop."

"Why?"

"To start everything from the beginning. He put them back in the automat."

I left my lever and went over to Susan. I felt sorry for her.

I don't think I like this game very much," I said.

"I don't like it either any more."

"It's all right. Harry will manage to establish harmony."

"I don't know what this means. All I know is that it's disgusting — taking away what was given to you."

Woodrop entered.

"What sort of idyls are you starting here? Back to your places! I must

have set the thyatron potential too high. You're loafing, and you were not fired."

"One second, boss!"

I ran to the lever, but it was too late. It was gone. Woodrop grinned, delighted.

"To hell with you," I thought. "I have enough tokens for today." Susan sulked and no longer used her automat. I reluctantly pressed the white button, naming various occupations. None were needed. Could our "society" have reached the saturation points in its supply of doctors, teachers, technicians, cooks? I pressed the white button again.

"Occupation?"

"Journalist."

"Hired."

I was stunned. A desk with a typewriter emerged from the machine. That Harry! He thought of everything!

"The press is a profitable business in our society," said Woodrop. "Your earnings will depend on your popularity. The more Susan enjoys your compositions, the more you will get. You can start right now."

Woodrop went out.

I sat down at the typewriter and began to think. Then I wrote:

"Extra! Extra! Colossal, sensational! New animals appear as a result of radioactive mutations! Speaking asses! Dog mathematicians! Ape homeopaths! Singing pigs! Poker-playing roosters!"

"What trash," said Susan, pulling a sheet of paper from her automat. "If this continues, I will not read, and you will die of hunger."

"You don't like it?" I asked.

"No."

"All right, I'll try something else."

"Colossal, sensational! Eighteen billionaires and forty-two millionaires turn over their billions and millions to the workers . . ."

"Listen, Sam, or whatever your name is! I will not read your ridiculous nonsense any more."

"Give me another chance."

"I won't."

"Please, Susan!"

"I don't want to."

"Oh, Susie!"

"Don't you dare to call me that!"

"Don't dare to call me that!"

I typed:

"Susie, you are a wonderful girl. I love you."

She said nothing.

"I love you. Are you reading?"

"Yes," she said quietly. "Go on."

"I've loved you from the moment I revived. All the time we've been fussing with this idiotic project I've been thinking of how we can escape together. You and I. Do you want to?"

"Yes," she replied quietly, pulling the sheet of paper from the automat.

"This is what I've thought up. After all, I have a profession. We'll get away from Woodrop and try to find real work, not this electronic nonsense. It will be easier for us because we'll be together. Honestly, after I saw you I came to the conclusion that it's stupid to slash veins."

"I think so too," whispered Susie.

Woodrop entered. He looked at apparatus and snapped his fingers.

"Ah! Things are moving, it seems

to me. The tension is stabilized! No more phase displacements! We are approaching harmony between production and consumption."

"Certainly, boss," I said. "Our society should start living decently some day, after all."

"Continue in the same spirit. I'll enter this in the diagram," he said and walked out.

"Let us meet here tonight. We'll jump out of the window."

"All right."

By the end of the day, I had composed about ten idiotic reports and earned a pile of tokens. Susan pulled out sheet after sheet, demonstrating to the electronic blockhead her interest in my output. The harmony was complete, and Harry Woodrop feverishly traced the diagram of his "Eldorado" in order to sell it for a million dollars. It was well worth it, for it took full account of the human element!

I bought sandwiches with all my tokens and stuffed them into my pockets.

At night, tiptoeing to the window, Susan and I halted near the "Manufacturers' Association."

"You did not use your automat yesterday."

"If I had, you would have earned less."

"We can take the dresses and the coat, if you want them."

"To the devil with them!"

"I can leave a note to Woodrop that I did it. I don't exist, anyway."

"Who needs them? It will be easier to walk without them."

We climbed out of the window, swung over the fence, and found our-



selves on a wide asphalt road, leading to a big city. Over the city hung a frenzied, flaming orange sky. For a moment, Susan pressed herself to me.

"Don't be afraid. There are two of us now."

I put my arm around her, and we marched forward. Only once, I stopped under an electric street light and, looking into the girl's trusting eyes, I asked her:

"Susie, how did you get to Wood-rop?"

She smiled faintly, stretched her left arm and showed me her wrist. An elongated red scar stood out sharply on the white skin.

"You too?"

She nodded.

And we went on, two people who do not exist.

END

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IN 2112

by J. U. GIESY and J. B. SMITH

Translated by Forrest J Ackerman

“Wake up!” said the Professor, and I opened my eyes.

He gave me a cup which, still obediently, I lifted weakly and emptied.

Soon he helped me stand unsteadily on my feet. “I believe we’ve slept a long time,” he continued. “If my experiment has been successful we are now both something over 200 years old.”

Then I remembered. I had allowed the Professor to hypnotize me, and the last thing I could recall was his voice softly commanding me to sleep.

Now I asked myself if he were a crazy fanatic as well as a hypnotist. I would willingly have confessed that I had slept for a long time for I felt weak and hungry — but 200 years! That was incredible! Still — I decided I’d try to find out what my companion actually thought he meant.

“Where are we?” I asked.

“In a hiding place I built for the

experiment,” he promptly replied, indicating the room by a wave of his hand.

Following his gesture, I admit the idea of 200 years began to seem more believable. The two beds in the room were covered with rags. The coverings from which I had just risen were tattered and moldering with age. Even the clothes I wore were falling apart, and the Professor’s were equally frayed.

Noting my glance he smiled and walked to a small trunk which seemed hermetically sealed. He forced it open and beckoned me to him. I obeyed, and he took out two suits giving me one and keeping the other for himself.

“This room,” he said, “was built under my house according to my instructions, and after I put you to sleep a friend put me to sleep the same way. I wanted to try the experiment and was willing to risk it. After I fell asleep we were carried here and the entrance closed. Now we’ll

go out; I'm very anxious to know what the world is like after such a long time."

Having drunk of the very old wine which had been left for us, and dressed in the new clothes, we attacked the place in the wall where, according to the Professor, the last stone was cemented in. After some time it moved, and, removing it, we crawled into a dark place which the Professor thought was the cellar of his former home.

At least he knew the way and guided me to what seemed to be a stairway, by which we ascended, somewhat unsteadily I confess. At the top a door barred our way. I heard my companion grumble, "It seems to be made of metal; the old was wood." He felt around and soon was able to open the door, but instead of swinging it glided into a slot in the wall. "There've been changes made," said the previous owner. "Well, come on and we'll see what we can find."

We quietly entered a room faintly lit from the outside. It seemed to be night; however in the air was a strange light — a sort of wan daylight, something like twilight, seemingly coming from nowhere because when I walked to the window and looked out, I could see the dark sky above the trees surrounding the house, and no street lights — only the strange luminescence in the lower air.

"I wonder how they make the light?" said the Professor at my shoulder. "What time is it? Doesn't seem to be anybody up. Let's try to

find out where we are and what year it is and if someone will feed a couple of vagabonds from the year 1912."

We found a door and entered a corridor. It was a strange corridor, and when we stepped into it it suddenly moved and effortlessly transported us a distance and stopped before another door. "Automatic platform," mused my companion. "Great way to save work. They were just beginning to be thought of when we went to sleep."

From under the door where we stood we now could see the same light which shone outside, only stronger. I pointed to the thread of brilliance. The Professor nodded. "Somebody awake after all," he said. "Well, let's go in." He took hold of the side of the door, pushed it aside, and we both entered the room.

A shriek rang through the air. Someone who had been sitting near a table in the middle of the room jumped up and eyed us with astonishment as though incapable of any further action after that first timorous cry. The figure was that of what in our time would be a young person of 17 or 18 and entirely clothed in white. While it stood there I was reminded of old pictures of the Greeks, for the soft folds of the vestments fell freely from the shoulders to the knees, except that there was a narrow strand beneath the breast. Her hair — it was a girl or woman — was arranged on an attractively shaped head, and her legs, from the edge of her skirt, were protected only by sandal-like affairs bound by criss-crossed ribbons which extended above

the calf. Her beautiful round arms were bare from the shoulders, and the collar of the dress was decollete, displaying a rose-and-white neck and breast.

The Professor approached her. "Don't be afraid, my child," he began naturally speaking English.

But she shook her head. "Mi ne komprenas," she replied with confusion.

I started. I recognized the language. Two hundred years before I studied Esperanto. I immediately said to her: "Cu vi parolas Esperanton, Fraulino?"

"Esperanto?" said the girl. "Yes, I believe they used to call it that. Today all civilized nations speak it. Who are you who accost me in this manner?"

Well, we told her our little tale and offered to show her the place we had just left. Her eyes lit up with interest and she smiled with a show of teeth. "First you must eat, and I'll get you suitable clothing; then we'll go look at that place of which you speak. I'm immensely interested in your story. Come."

She turned about and led us to a little door, slid it aside and bid us enter. We went in and a minute later came out on the second floor. It was a sort of elevator, constructed in the wall. The girl conducted us to a room and opened the door. "It's my brother's," she explained. "He hasn't got home yet but you can have his clothes." She crossed, withdrew several chests of drawers from the wall and gave each of us something which seemed to me similar to the

clothing of the ancient Romans, actually being short-skirted tunics.

"While you're putting on the clothes I'll fix something for you to eat," she said and turned to leave.

"Must we put these on?" I asked.

"Of course," said the girl.

"Somewhat . . . er . . . scanty, aren't they?" I started, and stopped as I looked into her violet eyes. Then she began to laugh the least bit.

"Now I understand your story," she replied. "You talk just like the ancients would. We wear for comfort and protection from the elements, not to conceal ourselves, my friend."

I changed the subject before that slim youngster could embarrass me further. "What is the light?" I asked, "and how do you control it? I notice that it turned on when we entered this room."

"There's a button in the sill," she explained with a smile. "The light is just sunlight, somewhat diluted."

"Diluted sunlight!" I exclaimed in wonder.

She leaned against the doorframe and laughed heartily. "Oh, that's funny!" she roared. "I guess you didn't have it then, did you? Well, now we absorb the sunlight and liberate it as we like. We light houses and streets and everything by the absorbent solar light. But I'm not the scientific type, my brother will explain it. I must get you some food. What do you prefer, food for body or food for thought?"

I was lost. "Both," I replied shortly, and though she smiled she nodded her head and walked into the wall. I suppose the elevator carried her below.

The Professor and I put on the clothes, and I confess that I was embarrassed while at the same time the bare legs of the Professor made me laugh. Soon the girl, unannounced, returned and took us to whatever one would call that midnight meal. We ate. I don't know what the food was, but it had a good taste after my long fast. She explained that some of the things were intended for the production of brain force and others for physical energy. I ate both and felt better. Afterwards I proposed to show her our vacant tomb.

She rose and went with us. While we went along the dark passageway I asked her if she was afraid.

She shook her head and laughed and, putting her hand in her blouse, she withdrew something similar to a pencil in thickness. "I could blind or kill you with this," she informed us simply, returning it inside.

Amazement struck me. "What is it?" I cried.

"A radium gun," she said. "It is a very deadly instrument. We use it only to defend ourselves and only women are allowed to carry them according to laws made after the last great war when many nations were entirely destroyed by various forms of such weapons. However it is permitted for women to use them for self-protection."

Everything was very odd. I regarded the girl anew. Under the soft light which poured from a grid on the ceiling which she had switched on, her small supple form stood visible in all its beauty, with the curves scarcely covered instead of being

concealed by the clinging folds of her gown. It seemed that I had awakened from the great sleep the very same 20-year-old man. At least at that moment I felt all the impulses of my youth. I reached out my hands to her. Her beauty, the gold of her hair, the violet of her eyes, the red of her lips, the delicate rose of her throat and arms seemed very desirable. I looked around for the Professor. He had already crawled through the hole into our former sleeping place where a dim candle flickered. Seizing the beautiful girl by the hands, I drew her to me and looked steadily into her eyes. "I love you — love you," I spoke lowly. "I don't even know your name but I love you, my darling!"

She did not withdraw but in fact gave in and let me draw her into my arms. I clasped her close, feeling how the warmth of her body penetrated mine. I could feel the beat of her heart against my chest. Very slowly she raised her eyes and looked into mine, as she nestled in my arms. "My name is Maida;" she whispered, "and yours, strange man from yesterday, whom I in turn love?"

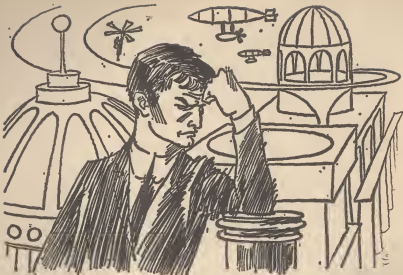
"It's Jones, plain Bill Jones," — then I opened my eyes.

The Professor stood before me with a smile on his lips.

I jumped from my chair and almost fell. "Why did you break in?" I demanded. "Where is Maida? Where did she go?"

"I suppose she returned to 2112," said the Professor with a grin.

"Cut that out," I demanded. "I want her. What did you do to me?"



"I sent you to 2112 to see what it will be like," he said and sat down in his old armchair.

"Then I didn't sleep thru 200 years?"

"You slept 10 minutes, Bill Jones."

"And everything was only — your experiment?"

"Just an experiment, Bill. Tell me what you imagine you saw." END

This antiquity, written in the year Tarzan was born in the pre-Gernsback prehistoric era of "different" stories and "offtrail" stories and "scientific romances," is from the early literature of Esperantujo (Homeland of Esperantists).

In 1968, approximately 30 million Teranoj (Terrestrials, Earthians) are believed to know Esper-

anto. If you are one who has never seen the language except for the few words in the foregoing story, here is a sample. I do not believe a translation will be necessary:

Inteligenta persono tre multe amas sciencfikcion. INTERNACIA SCIENCFIKCIO estas la nomo de la nova Frederiko-Pola revuo pri spacshipoj, interplanedaj aventuroj kun Marsanoj, Saturnanoj, ktp., gigantaj urboj de la jaro 2000, monstroj de la mezo de la Tero, superhomoj kun telepatio, ktp., verkoj de aŭtoroj de multaj landoj, ekzemple Francujo, Germanujo, Italujo, Hispanujo, Hindujo, Japānujo, Rusujo, Svedujo, Norvegujo, ktp. Bona leciono! Studanto numero unu, A-plusa! — Fojak (Forrest J Ackerman)

END



FLOWERS IN HIS EYES

by CLAUD FELBER

My son Ricky was born three months after our arrival on Altair IV. He looked like any other newborn baby. His skin was reddish and full of wrinkles.

He had two legs, two arms, on each hand were five fingers, and on each foot five toes. His head was covered with thick, black hair. Mouth, nose, ears were normal, yet he had

. . . no eyes!

Ruth had given birth without medical help. I had stayed by her side, holding her clenched hands, looking into the deep glow of her eyes in her distorted face, wiping the perspiration from her forehead, and I had suffered along with her.

When she learned that our son had no eyes, a change seemed to come over her. Her lips pressed together, her face was cold and unfeeling. She stood at Ricky's cradle, staring at him, and passed her hand slowly across his face, over the eye-cover-

ings. She pulled her hand back slowly and stared at me.

Her eyes didn't see me — they had died.

She treated Ricky like a lifeless object, as a person takes care of an auto, washes dirty dishes or dusts the furniture. She fed him, clothed him, carried him in her arms. Impersonally, without real interest, nothing to indicate the existence of love, such as a mother normally feels for her child.

A year before we went roving toward Altair IV, I had made her acquaintance. She was a British girl who had been working in a large chemical industry in a seashore city. I was working on a big farm.

We were barely acquainted when we got married. I knew nothing about her, and she knew even less about me.

I felt lonely in those days and hated life on Earth. Ever since I was a tiny boy, any place where great

crowds of men and women thronged was unpleasant to me. And Earth was overpopulated. I love the solitude, the tranquility, the sunsets here on Altair IV.

The thing that brought Ruth and me together cannot be termed love. Even sexual attraction played no part in it. She was not very attractive, a big rawboned woman with a striking face but colorless hair.

So marriage had arisen from a mutual loneliness, simply as a means of finally getting away from the rat race and crowds of Earth. After our marriage, we went to a travel bureau and went to Altair IV.

I grew accustomed to the alien, chilly climate of Altair IV, and the planet showed no objections to my presence. I also resigned myself to the differentness of my son, but my wife could not get used to the planet and her child.

Ricky was remarkable. He couldn't be compared with any other child. He slept constantly, except for the short intervals that were necessary for his feedings. At the beginning, I believed that he was also deaf and dumb, but this suspicion was unjustified.

In his third month, he began to utter noises, noises that sounded so strange and peculiar that they frightened me. The eye hollows, which some kindly fate had provided with eyelids, remained empty.

Frequently, my wife caused me to think that her mind was failing. She spoke little, did all her work in a mechanical fashion, hummed softly to herself, looked at me with wide

eyes — incredulously and thoughtfully.

We spent most of our time in leisure. She lay back in a soft chair, her hands clasped in her lap, a glassy expression in her eyes. Often she spent an entire afternoon outside the house, letting the slight breeze slip past her emptied face and breathing the intoxicating odor of plants that resembled sword lilies.

I often watched Ruth, as she got up slowly, as if obeying some strange compulsion, and with puppetlike steps went toward the many-colored lilies, bent over them and inhaled the scent. The plants seemed to stretch up toward her, twist about, and whisper secret things to her.

She loved these remarkable plants. These flowers were her only friends. She was constantly planting more of these alien things in the yard. She would kneel beside them, would even lie down beside them. Her thin hands slipped along the long stems and caressed the blossoms. Under her tender hands, the blossoms changed colors. I got the impression that the plants were bewitching my wife.

Ruth was growing constantly more distant to me. When she was around the flowers, her face was rosy, her expression relaxed and her eyes gleamed. When she was not around the flowers, she gave the impression of a cadaver. Her face was pale, dark rings appeared under her eyes, the cheeks were sunken and wrinkles formed.

The day came when she no longer paid any attention to Ricky and me. She ate nothing; she did no more work. When the sun set, she no long-

er wanted to come into the house. I was forced to shut her up in her bedroom by force. She beat her fists against the paneling of the door, and her sobbing could be heard all over the house. Restlessly, she paced for hours back and forth in her room.

The flowers seemed to complain when Ruth left them. At the outset, I assumed that the wind created these noises, but even on nights when the air was calm, the plaints of the lilies reached my ears. I didn't know what to do next. Derkalto, the next village, was nearly a hundred miles from our home. I tried to get Ruth into the jeep, but it was useless. She clung to me like a madwoman, pulled free and swung her arms wildly about.

One morning, while dawn was breaking, I arose and went into the supply shed. I picked up a scythe. I had again locked my wife in her room.

I went to the lilies.

They were damp with dew, very beautiful, in gaudy colors. They swayed slightly in the morning breeze, and their buds were starting to open.

I chopped them all down.

I worked as if I were out on a spree. I swung the scythe untiringly. The flowers groaned and tried to evade my destructive slashes. Sticky juice ran like green blood from the shattered stems. The green juice sank into the ground. Breathing heavily, I stopped and looked at the scene of destruction.

No lily remained standing.

I threw the scythe away from me, half-sick. My stockings were soaked with the reeking juice.

The sun was bringing strangely

formed cloud banks into colors as I entered the house. I knocked on Ruth's bedroom door, but she didn't answer.

I broke down the door.

She was lying on the bed, or more precisely, that which once was her body was lying there. The sight was horrible. Her body was chopped into tiny pieces, as if a madman had minced it with a sharp scythe. The bed clothing was covered with blood, blood that was no longer red but as green as the juice of the flowers that lay scattered on the soft ground outdoors.

Hours later, after I had pulled myself together a little, I dug a grave behind the house for her.

I burned the plants and searched daily all around the house, to determine if one of the devilish flowers had shown up.

With the death of my wife and the disappearance of the plants, things seemed to go better with my son. The strange noises stopped and contented, gurgling baby cries took their place.

I was happy then.

Our home was far from any sign of civilization. It was very rarely that anyone came by; I was alone with my son. The tragedy of his mother slowly grew less vivid to me. I hardly thought about it any longer. The matter would never be investigated. But if anyone ever should become curious, she had died in an accident.

I taught Ricky to talk. It was wonderful to watch him trying to utter his first words and to see the happy smile flashing across his face, when he said "father" for the first time.

Ricky was four, his body was well developed for his age. He could run around and chatter tirelessly.

One day, I took him out into the yard. It was a cool, clear morning.

"What's rustling there, father?" he asked me.

"The wind, son."

"It sounds so pretty."

The wind produced much rustling. The gentle rubbing together of the leaves in the nearest trees. The hissing of the blades of grass as they brushed one another. The rustling of the far-away stream. It sounded like music.

Ricky stood there, feet planted far apart, head bowed, face intent, and listened.

The wind, however, brought not just rustling to us. It also carried along the scent of moist earth, of animals and flowers.

"Father, I want to see!"

I did not answer him.

"Tell me what you're seeing, father."

"I see trees that are a hundred times your size. I see the tall grass swaying slightly in the breeze. I see the sun, Altair, that causes everything to grow."

I had described for him a hundred times how a tree, grass, corn, animals and plants looked. But usually I could not find the words necessary to make him understand I could only explain how I saw them, but how can a blind child conceive green, red or yellow?

His hands were his eyes. He lived in a world that was different from mine.

We stayed outdoors a long while. I led him through the tall grass. His fingers felt along the stems, carefully

and gently. He was quite solemn when we returned to the house.

We often sat outside the house. The setting sun cast a red glow onto his face. He crouched at my side and turned his head to the sun. We remained silent and listened to the rustling that the wind created.

Then the day arrived when the empty eyesockets filled out and the eyelids grew taut. I didn't mention it to him, but I hoped that perhaps a miracle would occur and he might be able to see.

Ricky frequently rubbed his hands against his eyelids, and he wondered about the balls that had formed.

"Ricky, try to lift your eyelids, just try it."

"I have tried, tried again, but I can't. I can't raise them. They won't move."

"Then try once more. Keep trying."

He made an effort. His face twisted from the effort. His shadowy eyelids jerked. His face was damp with perspiration.

"I can't," he sobbed.

Ricky pressed his head against my chest. His body was shaken as if by convulsions.

"It's no use, father, it's no use. I'll be blind forever."

I caressed his small body. He pressed closer to me. I cleared my throat. He was crying softly to himself, and his tears were falling on my shirt. I turned his head to one side and tried to raise an eyelid. I succeeded, and an eye stared lifelessly at me. An eye such as I had never seen.

An eye that glistened in many colors.

An eye that consisted of only a pupil.

An eye that was the color of a lily.

In fright, I let the eyelid slip shut.

I took Ricky back into the house. I gave him only brief answers that evening.

I was worried.

Was the past to rise from the grave? Were the lilies about to threaten me again? They had taken my wife. Now, my son, too?

I was sitting in my room. I heard the front door opening, and I went to the window. Ricky was going out in the yard.

He acted unsure of himself. He put one foot in front of the other in a hesitating manner. Then he stood still. His nostrils began to move a little. His lips opened. He walked slowly along. He went down the path that was paved with flat stones, opened the gate to the yard and walked into the thicket. The wind brought me an odor that I knew all too well. Ricky was strutting along.

I woke from my paralysis, leaped over the windowsill and raced after my son.

"Ricky, stop there," I yelled to him. He didn't listen to me. His steps became quicker, more purposeful. He went along unerringly.

Then I saw *them*.

I had caught up to Ricky and was pulling him back.

"Let go, father. Let go. I've got to go to them. The perfume. I've got to go to them."

He fought against me. He struggled with me. I was frightened, and I knew that my concern had not been unwarranted.

Under a bush, there were five lilies.

"I've got to go, father. Please let me go. Don't you see, father? I've just got to go."

I saw, all too well. I thought about my wife and about the dependence with which she had become attached to these damned flowers. And I wasn't going to lose my son, too.

The wind veered and pushed the odor away from us.

Ricky suddenly stood motionless.

"Where are you?" he asked. But the wind could not answer him.

I saw the disappointment that was imaged on his face.

My hands were still trembling when we went into the living room.

While Ricky was asleep, I went out and looked at the lilies. They had taken away from me my wife, but they were not going to get my son.

My wife died when I chopped them down. But my son became normal. Did the plants, perhaps, have less power over my son?

I stooped and began to pull out the flowers by the roots. I intended to bury the flowers in some faraway place. Then I heard my son scream. I threw down the plants, heedlessly, and ran to him.

He was sitting on his bed and was staring at me. I examined him. His breathing was difficult. His eyelids twitched and then — very slowly — they slipped back. I was unable to move. Finally both eyes gleamed at me.

The eyes were alive, really alive. They were multi-colored, and the hues flowed into one another. A horribly beautiful symphony of colors.

The eyes took possession of me. They became bigger, even bigger. The display of colors began to turn wildly. The hues flowed back and forth. They mixed together and broke free again. I felt my body stiffening as the eyes gained control of my physical self.

The colors moved ever quicker, ever livelier, ever more madly. I shouted; my head was ready to burst. The colors were eating into my brain. Everything was darkening around me. I fell to the floor helplessly.

When I awoke, I was sitting outside the house. I turned my head. I felt weak, as if I had had a beating.

"Come." I heard a soft voice in my mind. A tender, quiet, enticing voice that conveyed to my body a sweet excitement that I had never experienced until then.

"Come." I sensed it again.

I arose and went around the house.

"Come," it lured me again.

My son was lying there where I had buried his mother.

"Come," it insisted.

Those five lilies turned toward me.

"Come."

They were beautiful. They were superb. They were splendid. They were all my longing. They were my fulfillment.

My son was caressing one of these splendid creations. He stroked the tender stem and the soft bud.

"Come, caress us. Come!"

I crouched down before them. I extended my hand, hesitatingly. The flowers were too beautiful, they were too precious to be touched by my clumsy hands. I was afraid of hurting them.

My fingers slid along the stem and came to the flower petals, soft like velvet. Awe radiated through my body. When the sun set, the blossoms of the magnificences closed up.

"Go!" they breathed.

"Come again, when the sun rises," they whispered to me.

"Go!" they repeated.

I stood up and went into the house with my son. I fell asleep soon. When the sun rose, the enticement was back again.

In a short time, I acquired power over my body. I defended myself against the enticement of the flowers. I fought a useless battle. The enticement was there, stronger than anything that I had ever undergone in my life. Now I finally understood my wife, understood her actions, now that I was going through the same things. The enticement became stronger with every passing second, became even stronger and tore up my inmost being. My power of opposition broke up like dead grass. I needed the beauty, the gentleness, the sweetness of the flowers, as an addict longs for his narcotics. The enticement was present, it drowned all my inhibitions, my objections, my fears. My opposition had been too meager, I had lost the battle, which really had been no battle.

The enticement was here again, insinuating and sweet. "Come!"

And I came.

END

From CHILE



by HUGO CORREA

Meccano looked at the men out of eyeless sockets.

For a thousand years the giant head with its face like a primitive idol's, contorted with wrath and cruelty, had watched from its stone pedestal placed in the exact center of the crater.

"This wasn't here last time, Captain. I wonder who put it there?"

"We're not the only humanoids in the galaxy, Robert. It took us ten years to travel to the Earth and back, but ten centuries have elapsed on this planet. Anyone could have come in the meantime."

"I'm sure this is Daniel's work, Captain. He loved huge things!"

"Maybe. He was fond of art though that was pretty useless here, I should think. The Moon is an oasis compared to this place!"

"But he was also a cybernetic genius, Captain. I haven't forgotten his parting words. 'I'll wait for you.' he said. Remember?"

A flattened sun wreathed in a flaming halo spread a greenish light on the solitary head, the surrounding rocks, the darkened hills. The men circled the truncated neck and attempted to break off a piece of the hard substance.

"Then where is his reception committee? This head? He had no atomic bombs either, or he might have set a time bomb to wait a thousand years for us. Lucky they had no arms left. The idiot! When he found he was stranded with his thirty followers and his two craft destroyed I guess he realized that a member of the Cause had found a way into his expedition. And how he threatened us!"

Behind Meccano's impassive face, at the bottom of the dark orbits, the delicate mechanism that was built to last for thousands of years threw a switch with a low snap that was swallowed up in the silence. For those cavities had caught the image of the men as they entered the crater. Instantaneously a computer had compared data, shuffled figures and arrived at a lightning conclusion. Another switch opened in the dark interior of the skull.

"On this planet we will find the treasures we need to further our Cause, Robert. Daniel was no fool, he too realized the importance of this world so casually discovered. But in the name of his own principles of freedom, order and justice he would have destroyed the navigation charts so that no one could ever come back here. The Earth has lived on for five thousand years under such a system of order and all men are happy, he would say. Why want more? He didn't understand how other men could wish to break the routine."

The men climbed into the tractor and drove away, the caterpillar tracks leaving no traces on the granite surface. Meccano's sightless gaze followed them, dark eyesockets turned toward the access to the crater just as they had been placed on the dead planet one thousand years before.

"Don't forget, Robert, we have never been here before. The others must suspect nothing."

At the bottom of a ravine another tractor came upon a sort of car, shaped like no vehicle ever made by human hands, its wheels all but hid-

den under a rounded belly. It had small cavities in its flat roof and three openings in the longest side. As soon as the men had gone it rolled noiselessly to the center of a vast plain where it stopped and placed itself carefully. Another strangely shaped car, flat underneath and rounded on top, with long legs ending in small wheels, came up from another direction and rolled smoothly over the other one so that the roof of one fitted neatly under the belly of the other. The legs then folded up like those of a monstrous beetle.

Back at the *Swan* the men knew nothing of these maneuvers.

Outside the window of the captain's cabin the clearcut shadows cast by the peaks and hills of the planet shrank as the sun rose to the zenith, looking like a torch dragged over a black curtain.

"That peculiar car we saw wasn't here either when we came, Captain."

"It could be a remnant of Odasite culture. They used to build huge structures like that one. Maybe they came for ore and left behind some of their work."

"Daniel could have refitted the engines of the spacecraft we destroyed and set them up somewhere far away for transmitting power to any machinery."

"You're nervous, Robert! Suppose it happened that way. A hundred of them couldn't hurt the *Swan*."

"Yes, that's true. But what happened to the cranes, the shop, the buildings we hadn't time to destroy? Where are the dead bodies of Daniel and his thirty men? And the remains of the ships? This land is practically

flat; things like the spacecraft would surely stand out clearly."

"Yes, I noticed that too. But in the past ten centuries anybody could have come and destroyed or taken away everything that was left. Besides, for all his cybernetic brain, Daniel and his men couldn't have survived over ten years in this hell. If they were lucky. Why worry about what became of the bodies or the equipment?"

On the distant plain other cars of various shapes were going through movements similar to the ones the first two had carried out. A number of parts had joined accurately together to form a cylindrical shape, narrow in the middle and widening toward the ends like the shape of a headless human trunk deprived of arms and legs.

"You're right, Captain."

Two thighs slid over the burning plain and took their places in the empty pelvis, two legs immediately following to fit into the kneecaps with the precision of puzzle-pieces being put together by a live intelligence. For the pieces moved under orders from the head in the crater, while the men toiled around the *Swan* loading tons of ore into the hungry open holds.

Meccano fitted his body together into a powerful machine. The feet, high as thirty-meter towers, and the hands, wide as terraces, joined ankles and wrists. In the middle of the plain a headless body took shape, arms and legs outspread.

Then the feverish activity ceased.

Away in the crater the head tested the working of each part of the robot's body. The hands came alive,

the fingers stretched out and curled back into huge threatening fists. All at once the colossus sat up, sending out a ring of shadows around it.

"Robert, I have hidden the map and navigation chart. No one must know where this planet is. Things will always be done our way then, understand?"

Meccano took bearings and walked away to the crater with hundred-meter strides. Its shadow was a huge batrachian sliding over the stony ground. The robot knelt before the head, lifted it slowly, and with a single careful pressure of its strong hands placed it on its shoulders in the cavity prepared for it. Next, the eyes. Two white balls lay on the pedestal where the head had rested. The robot screwed them carefully into its eyesockets.

"Have we loaded enough material for this trip, Robert?"

"Yes, Captain."

"We left Daniel and thirty men to die and destroyed two ships to make sure that this planet would be kept safe for the Cause, didn't we? Well, tell the boys to get the last batch of ore. I'll see to the others."

At last, Meccano, the Guardian, was ready.

It rose up, high as an eighty-story skyscraper, its body covered with wheels that looked like the nuts and bolts of a huge mechanical toy. From the center of the crater the giant walked again in the world over which it had watched for so many centuries, on the torrid unchanging land.

Meccano had come to life. Now Meccano remembered.

As though following a voiceless marching song, the titan started towards the human spacecraft.

"Ready, Robert. Let's go."

The captain put his pistol back in his pocket. Outside the spacecraft the sun spread a burning shroud over four twisted bodies. Not far off, under the livid light, three tractors loaded with ore were making ready to return to the *Swan*.

The navigator pulled a lever, opened and closed dozens of switches. The hatches closed, the engines began to hum softly.

A giant figure walking towards the spacecraft suddenly materialized outside the window.

"God, Captain! That's — that's Daniel's work!"

"Quick! Let's get out of here!"

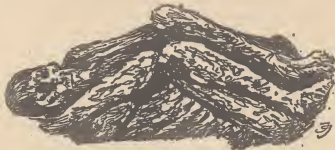
Meccano's fists came down with the weight of a thousand tractors, catching the *Swan* just as it was taking off. The craft swerved off course and shot away like a rocket over a wide parabola. A few kilometers away it crashed in a cloud of fire.

Meccano destroyed the tractors loaded with useless ore and terror-stricken men, picked up the remains of the *Swan* and its crew and took them to a far-off rocky mound that covered a cavity full of scrap and mummified bodies. Having thrown in its booty, the robot covered the hole calmly and efficiently as a gravedigger.

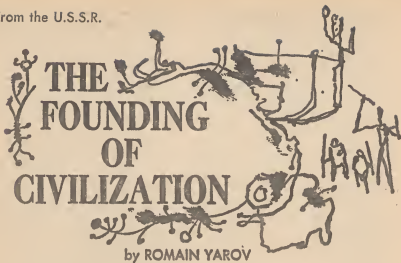
Then Meccano returned to the crater and placed its head back on the pedestal. Back on the plain its body came apart as swiftly and noiselessly as it had put itself together. The various pieces rolled back to their hiding places amid the hills and hollows of the planet, camouflaged by the color of the rocks.

Only the stones boiling in the sun remained on the plain.

From the middle of the crater Meccano's head watched over the dead planet with empty eyesockets, its irate, cruelly contorted face turned toward the access to the crater, just as, one thousand years ago, its creator had commanded it to stay. END



From the U.S.S.R.



At long last, races in time machines were after all included in the program of contests for technical sports. The long and persistent struggle of fans was crowned with success. The fans were proud, and they had good reasons for pride. Already long ago, from that day when the first notice appeared about the building of an experimental model of a time machine, the flow of letters to the editors of popular science magazines like *Knowledge to the Youth*, *Science Is Strength* and *Technology and Life* increased fourfold. The magazines kept silent at first, but then they all at once published descriptions of leisure, tourist, and competitive types of time machines, with colored sketches on supplementary sheets. Soon a sporting federation was formed for travelers into the past. As honorary chairman of it they elected

a one hundred and forty-seven-year-old man. They held several smaller long-distance competitions, but no one succeeded in getting farther back than the sixteenth century.

Meanwhile the best of the international caliber racers were traveling already into the first century A.D. From Sweden there unexpectedly came a notice which rocked the entire sporting world. A nineteen-year-old racer named Jorgen Jorgenson traveled through twenty-four centuries in three hours, eighteen minutes, forty-eight and three-tenths seconds. In answer, an article appeared in the sporting newspaper under the large heading: "Let's regain our former glory." In the article they criticized the factories which had made ready the mass production of time machines for scientific needs, but had forgotten about the sportsmen. The criti-

cism had an effect, and several sporting models were made and tested, with splendid results.

And then a decision was made to include time races in the program of the Spartacus Games, the mass sporting contest for technical sports.

The people were going from the subway to the stadium. The rolled-up programs fluttered like insect wings in the hands of the vendors. "Last round! Distance races! Main competitors are Vassily Fedoseyev, Konstantin Paramonov!" The sun was shining, the music thundering; innumerable shoes shuffled along, and little boys were poking about. Everyone was gay, and everyone was arguing.

"Paramonov has endurance, coordination! And what, may I ask, does Fedoseyev have?"

But during practice at Sukhumi"

"Paramonov, Paramonov! What's your Paramonov? Why, when Fedoseyev —"

"Don't give me all that about your Fedoseyev"

The degree to which the fans were informed was striking. An entire science — with predictions and experiments, with incontrovertible logic, with problems properly and methodologically formulated, with opposing schools of thought — was being developed between the subway and the stadium. While on the posters blue-colored racers were flying up to the heights of glory, and around them, winding in a spiral, were Athens and Sparta, Rome, Carthage, Byzantium, Genghis Kahn and Napoleon. This

spiral, according to the artist's intention, indicated the entire extent of human history. True, the racers were unable to see any such thing. It was strictly forbidden to stop in the remote places in time.

On the cinder track of the stadium the athletes were awaiting the signal. They were not standing in a line, but each one where he felt it was necessary. They were required not to be late in starting, but the place where they started from was immaterial. Fedoseyev's trainer — a graying veteran from among the test pilots — was feeling some bolts on the chassis of the machine and whispering into his charge's ear the final exhortations:

"The most important thing is to pace yourself. You're hot, but try to hold back at first. Wait until you get into the rhythm. And then, by all means push it all the way. Paramonov is a little weak in adapting to tempo — remember that. And don't forget about the plasmā attraction"

He threw his checkered jacket into the hands of the boys from the club; his strong arm, covered by the sleeve of his athletic jacket, lay on Fedoseyev's shoulder.

Down the track came running a thin young man in glasses. He was a graduate student, a historian who was the route specialist, and who had taken up the sport after graduating from the university. He shook hands with the uneasy racers and embraced them. "Just don't stop," he kept repeating. "Just don't intrude in the past" The controllers had already gone out on the route. It's very hard to hold back a running machine

at a strictly defined point in time: the "slippage" in both directions is from five to ten seconds. Therefore their figures seemed like ghosts standing up among the clouds. They hovered along the entire route of human history, people saw them everywhere and would take them for omens and natural phenomena. Courtly philosophers, laughing at superstitions, talked about the play of light in the atmosphere. Two centuries farther back they were dragging witches and heretics to the stake. Still farther back, the chieftains of nomad tribes looked at them and rejoiced, since the rider on his horse signified a successful raid and booty. While at the very end of the route, beyond which the technical characteristics of the time machines would not let anyone go, prophets, raising their bony hands toward heaven, and with beards trembling, exposed the injustice of the world.

Competitions for speed of flight in time were invisible to the spectators. Barely had the start signal been given than the racers disappeared. The fight was out of sight, like a marathon race, when the exhausted runners vie with one another on roads somewhere far away from the stands. But the field and track events had begun, and everyone except the coaches stopped thinking about those who had gone off into the centuries.

He appeared suddenly — exactly at the place where he had disappeared. At first the vibration hindered catching sight of the racer, and then it became clear that it was Konstantin Paramonov.

The coach ran up to his man, joyously embraced him, helped him take off his helmet and jacket with the feathers on it. Together they towed the machine to one side and began waiting for the others. Numbers lit up on the light board, the voice of the announcer gave the time, and added with a kind of restrained glee: "A really great result." A murmur ran through the stands. Fedoseyev's rooters frowned.

The other racers arrived one after another. Even the least favored were already standing on the track. But Fedoseyev did not appear.

Confusion began in the stands. Shouts were heard. The Judging Committee got in touch with the controllers along the route. It was impossible to clear up anything at all. Fedoseyev's trainer put on his jacket and demanded that a note be introduced into the record about the poor organization of the competition. The historian fussed worriedly. Then only when they had rolled up a large emergency-service time machine to the gates of the stadium did Fedoseyev appear. He was pale and exhausted; his blue eyes were dim, his light hair was dusty, his small beard was swept to one side, and his face — usually good-natured — looked somehow distant now. The trainer moved swiftly toward him.

"What happened to you?" he cried. "Where did you get stuck?"

"An accident," Fedoseyev said tiredly.

"And did you stop?" asked the horrified historian.

"Not for long."

"Where, in what century?"

"Take a look at the instrument panel."

They looked at the panel. The indicator was stopped at the 33rd century B.C.

"A record like that lost!" the trainer waved his hand. "Oh, brother!"

He turned and walked away.

For stopping, Fedoseyev was disqualified for several months. But he could not imagine his life without the sport, and he went to practice as before, listened to the trainer's explanations and the historian's lectures. True, the trainer cut down on his working hours. He was preparing a book, *The Companion for the Beginning Time Traveler*. But the historian was trying everything. He even brought a young acquaintance to the lectures, a graduate of a mechanics and mathematics institute, who explained to the racers the principles of moving through time from the point of view of intermediary spaces and negative probability.

Once the entire team went to a museum. The historian took them so they could become acquainted with the memorable places on the route. Hatchets, sepulchers, carriages The sensations while moving through the brilliant halls were almost the same as the feeling during races, when you pass almost blindly through the centuries. Near one completely un-noteworthy object Fedoseyev suddenly stopped. The others moved on, but he stood rooted, looked, and couldn't tear himself away. The historian turned and walked up to him. Deep down he sympathized with Fedoseyev — he too dreamed about

stunning expeditions into the past, but he could not become a racer because he just couldn't learn how to manipulate the "sun" on the horizontal bar.

"Well, what are you looking at?"

He took Fedoseyev amiably by the elbow. "An ordinary cult object from the late neolithic age. It was found in a sanctuary during the excavations of the capital of the mighty reign of Tlen-Tlits. Everything is written down

"No," said Fedoseyev, troubled. "That's my cigarette lighter."

"What?" the historian's eyes opened as wide as if he had seen a live pharaoh.

"Yes, I tell you."

"How can it be?"

"Do you remember, during my last event? The one after which I was disqualified? I had gone a long way that time. And if it hadn't been for the wire on the photon damper, I would have been first and Paramonov would not have seen the prize any more than his own ears. I pulled it — it wouldn't budge. I pulled again — again it wouldn't budge. And the speed was tremendous. You understand yourself that on a machine out of control, you can dematerialize by the count of two. I had to stop. But I always had my tools with me, so I lifted the cover, I looked — the wire had worn through and was hanging by a thread. I swore it. The mechanic had tightened the bolt too much, and I had been pulling on it all the time. Nonetheless it worked in fast gear. I stood and scratched my head. Ah, well, I thought, I shouldn't have stopped. I should have returned on



MAYBE YOU'RE OUT OF FLINT!

a thread. Well, I would have dissolved in time. Still it would have been better than sitting and burning up three hundred centuries before my birth. I didn't look around — there was no time. And suddenly out of the forest, one nearby, ten feet away, little people came jumping out. They shouted something. They ran up and all of them — wham! — right on their knees. "What are you doing that for?" I asked them. They muttered. They were barefoot, naked, wearing only the skins of wild animals. I asked for a drink. They brought out

some water in a skin. The skin was dirty! I told them: "My trainer forbade me to drink raw water; don't you have some boiled?" They didn't understand. Then it came to me that they didn't know about fire. I found a rock shaped like a bowl, poured water into the bottom, gathered some brushwood and lit a fire. I boiled the water and had a drink. I showed the the worn wire. They pondered; they dragged out some kind of bast fiber. I worked on it. I tried it — not bad, it would hold. "Thanks, fellows," I said, "and here's my lighter for a

keepsake. You will have roast meats and boiled water. Don't drink raw water — there are millions of microbes in it. Peace and friendship." And I flew away. And there you have it, I was with them about ten minutes, while here it turns out that three hours went by . . . Wait, what are you doing?"

The historian grabbed Fedoseyev by the arm and dragged him to the exit. They zipped along the waxed floor, and the graduate student kept repeating through clenched teeth:

"Follow me! Just follow me!"

At his house the historian shoved the surprised Fedoseyev into an armchair, grabbed a small purple volume from the book shelf and hurriedly found the page he needed.

"You had a beard at the time, eh?"

"Yes," sighed Fedoseyev. "A small beard. They wanted me to shave it. 'It doesn't become you,' they said."

"Then listen!"

And the historian began reading in a sing-song voice, holding the book away from him:

"He came to us from heaven and had a red beard. He was a great and wise chieftain who taught us to catch fire and to hide it. He gave us a spirit that could command fire. And he went back again to his place in heaven. Son of the Sun, and brother of the Moon . . ."

"Those are ancient hymns dug up in the same place. Do you understand?"

Fedoseyev shrugged his shoulders.

"That's you! You came to them from heaven and gave them a spirit that could command fire. That's how

they talked about your lighter. You began civilization! You're a great man!"

"Just imagine!" Fedoseyev opened his mouth. "They didn't forget! Son of the Sun and brother of the Moon!"

"Yes! In the translation by the academician Ornithoptersky."

The historian wrote about this occurrence to many papers. "A noble deed," "Athlete helps in trouble," "Thus behave real sportsmen." Fedoseyev grew famous. He began to get letters. People learned of him who were far from the world of sports. They reinstated him on the team, and he began to prepare seriously for the coming competitions. What's more, he began thinking, asking himself the question: how did he not notice that he had founded civilization?

He didn't put on any airs; he faithfully went to practice, and everyone was satisfied with him. Everyone — except his trainer. The trainer considered that his pupil did not have enough fighting spirit. Civilization was civilization, and fine enough, but none of these social matters should interfere with athletic successes; during competitions you had to try for victory at any price. You could establish a civilization during your free time. The trainer even decided that as an athlete Fedoseyev had no prospects. But when he saw what a community response Fedoseyev's noble deed had produced, the trainer decided to keep his thoughts to himself. And twice he even appeared in the press with articles on moral topics.

END

From FRANCE



YSOLDE

by NATHALIE CHARLES-HENNEBERG

Translated by Damon Knight



I

When he embarked for Nyx, the seventh planet of the Spike in Virgo, with his daughter Iza, a blind and deaf child, enclosed in her immobility like a little mother-of-pearl idol with white-golden hair, Ross the Technocrat knew he was doing a senseless thing. He had scoured the galaxy in search of an impossible miracle. He had consulted the physicians, the healers and wise men of innumerable planets. In vain.

All confessed themselves powerless. Iza had been born of an all-but-dead mother, crushed in the wreckage of a spaceship, and death had never quite released its grip on the cells of her body. Nevertheless, they had kept her alive for years. Ross would not give up — he would not have been what he was, a Technocrat IV, if he were capable of weakness or despair.

Somewhere between the Herdsman and the Whale, fate had given him one last chance: a traveler had told him about the strange quality of Nyx.

“Don’t bother telling me that it’s an improbable world,” said the astronaut. He had the graven, waxy mask of those who have stared too long, through narrow screens, at infinity and the stars. They were sitting under the climatized dome of a federal station, on an artificial satellite, waiting for the next ship. It was an unforeseen accident that had brought the great Technocrat to rub elbows with the mob. He congratulated himself on it. And it was a station like many others beyond Pluto, with its Plexiglas bubbles for differing gravities and atmospheric pressures, its humidifiers for the Over-Plants and its iridescent artificial suns. One was surrounded here by the fauna of a hundred universes: the gritty pur-

plish cones of Foramen and the Spider-Flowers of the Hyades, the threadlike Capellans and the crystal-line intelligences of Alpha Bootes.

With a sweeping gesture, the explorer took in that whole mass. "We've grown used to them, haven't we? But the first sight of them made me feel pretty small. And their worlds are the same: sometimes dazzlingly beautiful, sometimes disconcerting and almost absurd. Why should this fiery abyss be inhabited by creatures made of translucent quartz? Or why should that frozen black globe have its caverns full of the most fragile orchids? You know, there are whole phyla that are alive, in the organic sense of the word, only one year out of every thousand — but then, what a dazzle of colors . . . What was I saying?"

"You were talking about Nyx," said Ross.

"Ah, Nyx! That's something else again. Everything is real there, but time flows backward. Is it an effect of the planet's rotation, or of its sun, Spica? It's an enormous one, you know. There are a hundred and ten stars in Virgo, and it's the most brilliant of them all, a supergiant that you can see from Earth with the naked eye."

"How do you mean, it flows backward?" asked Ross. He was taller by a head than the spaceman; he was tired, in a hurry to get back to Iza, and he hated to waste his time.

"Oh, well, for instance, take Terra. She ages gradually. She has her ruins, her mountains erode away, certain gases escape from the atmosphere. The same things happen in the same

way everywhere else in the universe. But on Nyx, it's different. It's a planet that was inhabited, civilized; now it's returning to its origins . . . and so rapidly! Two hundred years ago, apparently, the atmosphere and climate were like Earth's. Now you have to wear a pressure suit there; it's a hot-box, swept with cyclones and floods, and the instruments register as much cosmic radiation as in our ionosphere."

"Curious," said Ross. "Any other peculiarities?"

"Well, there isn't much more to tell, except that human connective tissue seems to reconstitute itself. Paralytics walk there, no doubt, and the blind see. The only thing is, there's another danger. The ship's doctor explained it to us as we were passing. All the dead cells revivify and proliferate; in time it degenerates into a sort of cancer. Nyx is uninhabited today."

Sirens summoned the passengers; a crowd separated the two Terrans, and Ross never saw the astronaut again. But as soon as he got back to Earth, he visited the Cartographic Office, its galleries hung with star charts, its armored towers of filing cabinets and its implacable electronic brains which knew precisely everything about the universe. The functionaries of this important service had an unctuous and sacerdotal majesty — and they came from every part of the galaxy.

Because of Ross's rank, he was received by the deputy director.

"Someone mentioned Nyx to me," said the Technocrat, seating himself across from this faintly mauve personage in his purple miter. "How

does it happen that this planet doesn't appear on the astrogational maps?"

"Ah!" said the other. "Nyx? It was formerly in our atlas. It was — how shall I put it? — effaced. Yes, by order. You see, in the early days of galactic exploration, the scout ships put pretty nearly everything on their charts — unimportant asteroids and hell-planets. Later on the authorities began to put some of these places off limits — the really intolerable ones — but they realized that would only attract swarms of adventurers to them. To people like that, a forbidden planet is necessarily crammed with gold or peopled with sirens which the Federal Government reserves for itself. There were quite a lot of casualties. There was only one solution left: to obliterate the dangerous planets. That's what we did."

"That carries a danger with it — a pilot might land there by mistake."

"Most of them are off the regular routes. Like Nyx."

"Why is Nyx dangerous?"

Somewhat reluctantly, the cartographer pressed a button. A microfilm opened; a tiny screen lit up on the opposite wall. The metallic voice of a robot told the improbable history of a world which had thousands of years of civilization behind it, a planet covered with the ruins of megalopolises, immense deserted landing strips, proud monuments, falling apart under the weight of the temperature, the flora and the general conditions of a carboniferous age.

"It seems," said the deputy director, "that we're dealing with a phenomenon brought about by the recent enormous nuclear explosion of the

furnace Spica: an old sun which must have returned to its primitive state. Nyx, in any case, is also returning to its genesis. It should be interesting to see where this devolution will stop. The origins of life might be studied there."

"By whom?" Ross asked.

"Oh, scientists from terrestrial stations."

"There is a laboratory on Nyx," the robot responded obligingly. "Two prize-winning biologists are conducting local observations: Dr. Lorris Nevel and Dr. Marina Nevel. Certificated. Married. On Nyx for three years."

"And they're still alive?"

"So far, yes."

The cartographer was able to turn off the loquacious machine: Ross had no more questions for it. His stellar-propulsion ship was waiting for him at Marsport. He left the next day, taking Iza with him.

II

Marina Nevel passed the electron microscope to Lorris. Her hand trembled slightly. They leaned together over the experimental tank in which the atmosphere of Nyx was being bombarded with various radiations. They were trying to recreate in the laboratory the exact conditions which had produced organic life on Earth.

Above the prefabricated dome, which sheltered their precious apparatus, yawned the terrible sky of Nyx, studded with enormous diamonds. The hundred and ten stars of the Virgin filled the vertiginous emptiness,

and that dome of dark gold was striped with coal-black shadows of tree-ferns.

From the moment they set foot on the retrograde planet, the two scientists had approached their experiment as a great adventure. They knew without the need of words, that they would never again see the gentle Earth, its mild oceans, its regular seasons, a stable and familiar world about which they knew everything save its origins. They knew also that their time on Nyx would be short. They had taken as their point of departure the old 20th-century hypothesis of Dauvilliers and Séguin. It was known that these two pioneering scientists had recreated the primeval conditions in a sealed environment. Their postulate was that the sun's ultraviolet rays, working on the oxygen and carbon dioxide in the atmosphere, and the ammonia in the seas, had created nitrogenous matter and given birth to the evolution which was to culminate in Man.

Nyx itself offered a medium for genesis; and the cosmic radiation and interstellar gases at the Nevells' disposal completed the action of the ultraviolet.

Today, the primary phase of the experiment had reached completion.

Lorris trained the microscope on the tank, which seemed empty to the naked eye.

Nevertheless, on the tiny screen, bathed in a colorless flood, something moved, among the vibrations and luminiscences. It was impalpable and thin, visible only at high magnification, and for just a moment Nevel

thought that they had lost the game.

But Marina extinguished all the lights, except for the black-light screen, and in that half-darkness the thing glimmered feebly, hardly more than the luminous spark of an electron. It must have possessed senses, or some extrasensory perception, for it immediately fled to the bottom of the tank, exactly like a frightened animal, and for a second Marina felt herself watched by an unwinking gaze. Not hostile — but terribly insistent and curious.

She shivered and drew Lorris aside on the platform that surrounded the lucite globe. "Well," she said, "have we found it?"

He hesitated. "It looks like it. The invisible quantum, the spark of life in its pure state . . ."

"Of plasma?"

"No, radiant energy, I think. A form of light, in short. It's strange that no one has ever associated the two ideas. Even though all the ancient scriptures speak of light and life together. Let's not get carried away, we've got a lot of analyses to do. I'll start on them now."

"No you won't!" Marina protested, wiping her narrow white forehead under the fringe of blue-black hair. "Spica will be rising any moment — it will be unbearable outdoors, and our airtsuits are in the house. Come on, we've been up all night; it's time to have something to eat, like normal people. Let her irradiate herself awhile longer, little Lumen — we'll call her Lumen Nevellia."

"All right," he said. "You go ahead, I'll cover the globe."

She left him, with a possessive

smile and glance. In spite of everything, this tall blond man, with the gray eyes of a dreamer, often seemed terribly far from her. In other times, the lords of Lorris had worn a cross on their breastplates or had been riders of chimeras. On Earth, Marina had had to submit to an unusual treatment, to cure her of jealousy. But on Nyx, all was well. Nyx was the vast dreamed-of prison for a spirit that fled always toward the unknown and the invisible.

While Lorris covered the globe, she went down to the house, which was climatized like all the rest. She hurried: a glow of light, first blue, then purple, already rimmed the horizon; huge Spica was about to rise, heating the retrograde planet's atmosphere to a fantastic degree, causing spores and seeds to burst. All the molds would come to life, the water in the ponds would begin to boil. Each new dawn found this world changed, more terrible. Not to mention the storms! Marina paused before the big Plexiglas window which formed one wall of the house. The City was silhouetted against the uncertain light, drowned by the jungle: towers, domes, colonnades, these ruins had a quality of colossal harmony. Her eyes went to the thing she loved best: a temple, carved and pierced. At the corner of an intact balcony, looking out over the forest, a statue devoured by moss was still beautiful — like a Valkyrie.

"But not when you see her close up, surely!" Marina had said, the day when Lorris had pointed it out to her. "See how she's powdered with

green. Under that veil she must be hollowed out, tunneled. Every pore in the stone is a nest of terribly active molds . . ."

"Well, then," Lorris had said, "she's half alive."

It was only a statue. Marina gave a smile to her inoffensive rival, then went out on the terrace. To her surprise, Lorris was standing there, looking absently toward the already incandescent sunrise.

"What's wrong with Lumen?" she asked abruptly. She recognized that strained, obstinate expression. Lorris turned his distorted face to her.

"Lumen? It's living energy, all right, as I thought. But mutable, intermittent — it needs to be fixed in matter; I think that was the role played by Dauvilliers-Séguin's amino acids. Otherwise, as a quantum, indivisible, it exists for the shortest possible length of time."

"Meaning?"

"That there's no more Lumen in the tank. Don't get excited. I can make another one at will."

"And then you'll give it an acid breakfast."

"Yes . . . no. Let me think." His face lighted up. "Why should we stick to classical methods and tie ourselves down to the frightful slowness of nature? Our lives wouldn't be long enough, working with animated plasma. We could try a more daring experiment — introduce Lumen into a complex biological organism."

"You want to create a chimera, a monster?"

"We're not talking about fables, Marina."

"And when I say *monster*," she in-

interrupted, "I know what you're aiming at. First you want to reanimate a dead frog — then a saurian. A man is out of the question, luckily, unless you start working on anatomical pieces. But even with a frog it would be dangerous, because we know nothing about Lumen's characteristics. Do you want to turn a batrachian with an atomic brain loose on the universe? Enough atrocities. Come have your breakfast."

He did not seem to hear. Inside, he put on his airsuit.

"Where are you going?" Marina demanded.

"There's a heaviness in the air," he said absently. "That means a storm. I'm going to turn on the cosmic-ray projectors. The experiment ought to be interesting, if —"

The rest was lost in the hissing of the thick steam that rose from the ground, the furious crackling of bursting sepals — the whole prelude of a terrible symphony. Nevel walked away like an automaton, and at the same moment Spica rose in an orange mist that concentrated its fires. Sky and earth took on the color and almost the consistency of lead, and the forest was no more than a hideous backdrop, placed there centuries ago, for a tragedy. When the young scientist came back, violet tornado shapes linked the sky with the plateau. Nearby, the ocean boomed. The Nevels knew the hurricanes of Nyx, compared to which terrestrial cyclones were mere breezes; they hurried to seal the doors and close the shutters, transforming their house into an airtight unit, as closely sealed as a spaceship.

Just as the last shield slid into place, a giant fern shattered itself on the roof. Marina turned on the periscopic screen: she loved storms. Out there it was an inferno, madness unchained. Purple balls of lightning were bounding under the horsetails. The enormous sun was only a pale spot among the cataracts and whirlwinds, and tresses of vines lashed the screen like floating hair. Finally a new tornado arrived, whirling giant saurians and the trunks of mimosas three meters off the ground, and the screen suddenly stopped working. In the abrupt darkness inside the house, the last note of a record Lorris had put on trembled for a moment in the air — a music that spoke of a ship scudding before the storm, of a hyperborean ocean and of two lovers linked by fate. Silence followed. Then, with terrible distinctness, the Nevels heard a tapping in Morse on the shuttered door:

S.O.S.

Instantly they were on their feet. A living being was struggling there, in torment! A human cast away on Nyx was calling for help! Quicker than Lorris, Marina was in front of the door.

"Don't open it," she cried, "it may be a trap!"

As always, she interposed herself between him and the unknown, between him and the hostile, dangerous world

"Remember, we hardly know this planet at all. Remember the stories the explorers told — all those living sands, the plants that kill —"

The signals were growing weaker. "You're crazy," said Lorris. "Our

first duty is to help any intelligent being in danger."

"Intelligent? How do you know?"

"It uses universal signals."

She clung to the man's shoulders, trembling. "Don't open it! I'm afraid — I don't know why!"

As suddenly as it had begun, the tapping stopped. Tearing himself away from the too-soft arms, Lorris slid back the panel. A purple flash of lightning lit up the landscape.

It was a terrible moment, the calm at the heart of the storm. In full daylight, the mad planet was shrouded in darkness. Amid the whirlwinds and electric discharges arose a Nyx of the Tertiary, fantastic, with its mud aboil. Cataracts tumbled down the mountains. Against the pale blotch of Spica, the megalopolis held up its haunting profile.

At the doorsill, Nevel ran into two bodies. The man, burnt, unrecognizable — a black and red mask, convulsed with pain — had fallen full-length. Even in death, his arms were tightly clasped around a child, a silhouette of wax and mother-of-pearl, covered with a mantle of long golden hair. She did not seem wounded, but Nevel, bending over her, could not hear her heart beat. He lifted her: she was heavy and already cold. The charred dead man seemed to stare at Lorris with reproach — this dead man who, after a stellar shipwreck, had made his way through the Neozoic jungle and all its traps, with his child in his arms.

Nevel was seized with remorse.

At that instant, the cataclysm broke out anew. An immense line of fire cut the firmament in half, and

the lightning struck the dome of the laboratory. Picking up the young body in his arms, the scientist threw himself back into the house and closed the panel.

"She's only a child," he said. "And I'm afraid she's dead."

They did everything they could for her. In the end they had to give up. The girl, who might have been fifteen, wore a bracelet with her name: *Y. Ross*. It was a name everyone knew. The Technocrat's ship had landed on Nyx, to be met by the hurricane. But why had he come to this demented planet? No one could give them the answer; and, bending over the lovely corpse, Marina and Lorris gave no thought to their own disaster or the destruction of the laboratory.

III

The storm lasted twenty-four hours and ended as suddenly as it had begun. Nevel went out and surveyed a scene of desolation. In two days and nights, Nyx had regressed a geological age. The ancient ruins were flattened. Only a few edifices of indestructible jade or onyx were still standing, here and there — and the green statue on the roof of the temple.

"Stay here," Nevel said to his wife. "I'll go and see if there's anything left worth saving." He pointed to the laboratory, which was virtually obliterated. "Afterward, we'll have to bury those two . . ."

It was impossible to preserve the bodies. Lorris had no idea what condition the electronic installations were in. Probably everything had been

broken, ripped apart. He left, and Marina was alone with the young dead girl. This time she had not protested. She felt strangely humble and guilty, and she searched for excuses. "Actually," she told herself, "we couldn't really do anything for them: the child was already dead when the man arrived, only to die himself . . ."

Then, once more, she put aside these useless rationalizations: the past was the past; they had to live and face the future. What were their own chances of survival?

"We have this house, intact, and the provisions in the cellar; we have our airsuits, a light rifle, a disintegrator which I don't know how to use. The rifle has a radioactive bead a little too large; the other day, I shot at a saurian that was carrying off a moufflon. I killed a big lizard, but the flesh of the moufflon was radioactive, unfit to eat. I've got to ask Lorris to fix the bead . . . If we manage to repair an interplanetary transmitter, we'll have to try to reach Earth. They'll evacuate us, probably. I won't like that at all."

She was happy on Nyx, with Lorris. She didn't mind the storms.

She made her rounds as usual, corrected an excess of ozone in the air, turned on the climatizers and inspected the storeroom. Everything was apparently in order. But when she went back to the living room, a strange, oppressive feeling came over her: a feeling she had had once before, as if someone were watching her, withdrawn and curious.

She turned mechanically: the child's body, which they had placed on a folding bed in the corner of the

room, had not moved. But the sheet that covered it had slipped down, revealing a face as white as cherry-blossoms, as snow, as the abyss — and immense, wide-open eyes.

They were strange, those eyes, between their long lashes like fringes of black velvet; they were vast and clear like the spangled sky of Nyx, and they were certainly not human. "If the elements could see, they would look like that," thought Marina, stunned.

Automatically she moved forward. But suddenly the girl's body under the sheet made a sinuous movement of withdrawal — like a supple and flexuous animal retreating. *Exactly that kind of motion.*

"I'm losing my mind," said Marina to herself. "Lumen! At the instant the lightning struck the laboratory, was there a Lumen under the cosmic-ray projector? A quantum of life that escaped, settled elsewhere, in this corpse?"

Even her thoughts stopped, frozen with horror.

Call Lorris? She had always tried to shield him from the outside world. Besides, she was not sure how he would react.

No, she preferred to solve the problem alone. She straightened, walked toward the child.

Then without a breath, in a single squirm, the slender body rolled off the bed and flattened itself against the wall. The fixed, terrible eyes stared at Marina, eyes in which wavered the original light; and through the tunnel of that stare, she entered the world of genesis, fabulous, a

prodigiously ancient life — dating from before all morality and all differentiation .

Marina understood that a new species had appeared on Nyx. She did not know her own powers as yet, not all her muscles obeyed her, probably she did not even have a voice — but all that was a matter of development, of acclimatization.

For she could no longer doubt. Escaped from the shattered laboratory, Lumen had sought a host — and she had instinctively chosen the most complex organism.

From that moment, two forces struggled within Marina: scientific curiosity and terror born of repulsion. The second had all but won. Her human hands were already stretched out to destroy the horrible fascinating creature, when Lorris came back. His first words were:

"She's alive!"

Impulsively he threw himself toward the cot behind which swayed the huddled form. Marina wanted to cry out, "Don't touch her. That isn't a human child . . . It's I don't know what kind of horror that we've created by accident, and that we ought to destroy before it begins to do harm"

But her frozen lips did not move. Mute, immobile, she watched Nevel bend over, lift the radiant little idol and her riches of golden hair.

He laid her down on the bed and examined her, uneasy.

"She fell," he said. "How did that happen? Her eyes are open, but can she speak, can she hear? She's all stiff."

As if in response to these anxious

questions, the body lost its rigidity, it shivered, the fragile arms unfolded, rose like wings and settled in a cool collar upon the shoulders of the leaning man.

Marina cried out — at long last: "Kill it! It's a monster, without a soul or a mind!"

Without a mind? . . .

From the instant when the spark of primitive life glittered in the cosmic darkness, Lumen had perceived and assimilated the universe.

In her fashion.

Could the term "mental process" be applied to the slow concentric waves — the circular movement of electrons around their nucleus? *Cogito, ergo sum*. Turning the ancient Terran wisdom to her own use, Lumen lived, therefore she thought.

It was not a monologue. Neither time nor space existed as yet for the unfinished creature. An occasional datum or image sprang up from the primal source. Little by little, a logic took shape. Beyond that was the darkness, the absolute void.

(Marina would have been chilled with terror, if she could have entered that abyss peopled with amorphous figures, vague ideas — formless monsters, still lost in a chaos as old as the universe.)

Lumen's thoughts:

I am. I have always been. Or at least I've been part of something . . . primordial, eternal. It was like an ocean into which endlessly flows all that is essentially life: light, matter and motion. An infinitesimal atom, I was lost in the universal symphony.

I was taken out of my environ-



ment, hurled into the darkness. I was cold. And also . . . I don't know the word — when one retracts before an opposing principle. Yes — fear. Then the world exploded. It was horrible. I wanted to diffuse, dissolve myself, but something captured me, like a magnet.

It was suffering a terrible agony. Hot, red energy was pouring out of it in torrents. I fell aside, but then it grew cold. I labored in that ice, in that darkness. . . .

Now there is light again. A narrow container condenses and restrains me — me, limitless, diffuse, a nebula. There are things I can't grasp. I haven't succeeded in moving this matrix of fragile flesh. But that will come. I can feel it.

The contrary principle takes on a shape, too. The negative pole. I see it ("they" call that "seeing"). There is a word also for this bundle of intuition and nerves: "a woman."

Silence. Hide. She wants to destroy me. Why? She is large and powerful. Run. My body does not obey me. Slip down, fall. . . . The positive principle enters. When he is there, all is well, our two energies communicate. But there must be a contact: he must come closer. I manage to loosen my rays . . . or are they tentacles? I cling to him.

The woman cries out. She wants to kill me. . . .

Marina had screamed at him. Now she realized that Lorris had never looked at her so coldly. She stepped back involuntarily, put her hands to her bleeding mouth.

"You're crazy," he said, as he had

said once before in the uproar of the storm, while a hand stiffening with approaching death rapped at the door of their shelter. "The child has just come out of a coma; think of the shock she's been through!" His voice softened. "You're suffering from shock, too, I think. Take a sedative and lie down. You'll see, nothing nicer could have happened to us: now we've got a little human sister. You won't be alone any more, when I'm away"

"No!" Marina cried. "It's Lumen!"

He looked at her uneasily. "By heaven, I wonder if the shock hasn't affected you more than I thought! Listen to me, Marina. The lab was struck by lightning, then flooded by rain — everything is damaged, burned or waterlogged. The experimental tank is full of muddy water. There's no more Lumen. And no possibility of reconstituting the environment. Does that satisfy you?"

With her back against the wall, Marina had managed to take down a corroded hatchet Nevel had brought back from the megalopolis. She brandished it, trying to strike the light-creature. Quick as lightning, the creature slid away and huddled against the wall. The weapon flashed through the air. Lorris had not had time enough to intervene: a little blood spurted from Lumen's temple; she fell back, motionless, in her glory of golden hair.

Nevel strode forward. He was pale with anger.

"If this is how it's going to be," he said, "I'll lock you up."

"I'm your wife, Lorris!"

"Yes, and an attempted murderer.

A dead man left this child on our doorstep; we have a responsibility to her. Come on."

He led her into their room. She went without protest, inert, emptied of her rage. Her act seemed to her odious and grotesque. Nevel closed the door on her and locked it, without a word. When she was locked in, she wanted to explain; she cried out, banged the wall. No one answered. Then she came to her senses, went to the medicine chest and took out a sedative.

Lorris had returned to the girl, who had seemed to have fainted. He looked frantically for a glass, some wine in the refrigerator, and finally settled for a short, squat flask of crystal in the shape of a wine-skin, containing a golden liquor which he tasted as a precaution. Yes, it was just right for a child: a sweet Terran wine, thyme-scented, "a sort of herb wine," he thought, pursued by a vague recollection, a legend or a few piercing notes of music that spoke of a green ocean. This couldn't harm anybody. The one mouthful he had swallowed was cool as autumn air, but deep within it there was a hidden fire. Lorris knelt beside the girl's still body and forced the liquor drop by drop between her teeth. Lovely and terrible, the creature surged up in blood and gold, and he found himself staring into a charming inverted face, the spangled ocean of her eyes, and her lips like a fruit waiting to be bitten. A strange fire was in him, an insinuating warmth — it seemed to Nevel that he was coming home to the world for which he was made, a distant shore, a forgotten country.

He bent down. The flowing hair smelled like honey. The mouth had the salt taste of spray.

IV

Marina awoke with a start. Damn that sedative! Or had she taken an overdose? She had slept as if she had been poleaxed. Her memory was blurred, but her hand automatically explored Lorris's vacant place on the pillow. Then that awful day came back to her, in all its details, with an intolerable clarity. She got out of bed and ran to the door. It was no longer locked: Nevel must have come in to make sure his wife was asleep.

The living room was empty.

It was the pleasant hour before Spica's rising. The air, freshened by rain, smelled of seaweed, of the jungle. No doubt Lorris had gone out to prospect in the ruins, without his airsuit.

And Lumen had disappeared.

Lumen

Suddenly Marina felt terribly weak. Her hand reached for the crystal flask that had contained an ancient liquor, a wild elixir given to her by her grandmother. There was a legend attached to that wine, but she had forgotten it.

The flask was empty.

For an instant Marina had a sharp, terrible sense of aloneness. She knew she had lost Lorris . . . had he ever really existed, that blond rider of chimeras? He had come into her life, carried her off beyond the void, the stellar eddies, nebulas, then he had disappeared again into nothingness. And Marina was left alone on a de-

mented planet, where mysterious life roamed among the tree-ferns.

She had to make an effort to control herself. Moving as if in a dream, she put on her airsuit, took down from its rack the light rifle, useful in spite of its too-large radioactive bead. It felt comforting in her hand. She left the house and followed her instinct, or rather a subconscious strain of music, evoking another flat beach, a greener ocean. The path under the horsetails descended toward the ocean, glittering with a thousand stars. Marina came to the shore.

This was the place.

They were lying on the white sand; she, covered with the flowing, sparkling mantle of her golden hair. (How had they ever mistaken her for a child?) Long and slender, she gleamed like a pearl. Never had Lorris gazed at his wife with such dolorous rapture. He had laid his disintegrator between them. Their hands did not touch.

The waves died at their feet in a silken murmur, and the whole world was mysterious and pure, as at the dawn of its creation, when life emerged from the sea.

Marina bit her wrist to suppress a convulsive shudder; she leaned against a boulder — aimed — fired.

She knew the secondary radiations had not spared Nevel. For the moment, that made her task easier. On the sand, the dark trace of a slender body faded away immediately. Marina sighed with relief: that was the last of Lumen!

Lorris was only stunned. She hunted up an intact carrier and took him

back to the house. When he revived, she claimed total ignorance.

Lumen? But he knew perfectly well that the tornado had destroyed their installation. There was no way of recreating the essential conditions of the experiment, and they could not contact Earth.

Yes, a cosmic storm had swept Nyx. No doubt that accounted for this abrupt change in evolution; they must take that into account in future experiments. Yes, a ship had crashed, and they had found the bodies of Terrans. One of them was even buried under the giant horsetail in the clearing. A man. Afterward? Nevel had been sick. That was all.

Bitterly, tirelessly, she wove around him the veil of forgetfulness. Lorris was very weak and could hardly get up. One day when Marina had gone out, he slipped, as he often did, into a state of semi-consciousness. His hand, dangling off the bed, brought up a long golden hair, clotted with dried blood. He heard a piercing melody and glimpsed the icy sparkle of the stars on the sea.

When Marina came back, he asked, "Was someone wounded here? I found this near the bed."

Marina turned away, pretending not to hear. There was a certain cruelty in her action, but he had been cruel first. Time was on her side. Time

In the ruins of the laboratory, she found an interplanetary transmitter, almost intact, and destroyed it.

Meanwhile, she took devoted care of Lorris and led the primitive life of a pioneer. Since the hurricane had ruined the cultivable area of the

camp, she had to hoard their stores of food. Out hunting, or fishing, she took the path to the ruins. A strange, relentless youthfulness drove her to climb the eroded walls of buildings, leap into the pits that had been cellars, swim across ponds that had been swimming pools. She learned to go by night, with a spear, for big purblind fish that shunned the light of Spica. Nevertheless, certain street corners, certain fishing ponds made her uneasy: a dim glow wavered there.

She had never felt so light, so brisk. Except for stabbing headaches, accompanied by a slight swelling of the eyelids and temples, she seemed to have grown habituated to the climate of Nyx.

In her longer and longer expeditions into the jungle, she formed the habit of taking the temple as her reference point. Built of green and white jade, almost veinless, it was probably the most ancient structure in the city, and the one that had best withstood the assault of the elements. And the statue of the goddess was always there. Marina smiled at it each time she passed.

Until one time.

At one of those Nyxian dawns — one of those rare moments when the world lived between the heavy darkness and the intolerable glare of day — Marina was coming back across the megalopoles. Her bag was empty. Her rifle had begun to jam, and she still could not manage the heavy disintegrator. (Without her realizing it, everything was falling apart at the station. Machines were out of

order, rusting to pieces; she had restored the electricity, but there were short-circuits in the electronic brain; a tenacious mold covered the walls; and Marina took all this with astonishing lightness, as if she too were returning to childhood.)

Finding herself before a basin strewn with waterlilies, whose smooth, dark waters trembled gently, she thought perhaps she could spear some of the huge batrachians that swarmed among the green leaves. She leaped up onto the curb, and the surface of the water reflected her with pitiless precision: ragged clothes, her body strangely thickened, but endowed with a savage agility, and childish face with an unsightly tumor on the forehead.

She had not even realized that the cells had proliferated. She felt only the sharp pang: this was how Lorris saw her.

Indeed, she must have become a horror to him!

At the same moment or nearly, under a sky of gold, her contracted pupils met the gaze of the goddess on her jade pedestal, lit by the green glow that penetrated the undergrowth.

She was always there, immovable and victorious; the sheath of micro-organisms had not succeeded in destroying the perfect harmony of her features. Great eyes opened in the touching softness of her face, like gulfs in which wavered a dreadful living glow. She had seen the birth and death of worlds; and she had survived them.

She was . . . life.

In the uncertain glow of dawn,

Marina thought she saw a faint smile curve the full lips.

She fled, because the thick hammering of blood in her temples was taking on a form, a meaning. Scattered through the night, emitted by all that trembles, lives, breathes — mosses, algae in the marsh, wills-o'-the-wisp — she sensed the thoughts of the creature she had vainly tried to destroy . . .

Lumen's thoughts:

She is there. She wanted to kill me. She succeeded, or almost. I've lost my host again, and it's all the more dreadful because I'm differentiated. She has taken me away from *him* — the positive pole toward whom I yearn, with whom I must melt together to form a whole.

Cast out into the icy darkness, my need to expand and disperse myself draws me toward the abyss. But then, I know, I would lose *him* forever — our one contact was so brief. So I stay here, clinging to the infinitely small, to plants, to certain minerals which they penetrate. Chained. Trapped by the matter which holds me. I exist.

I will not die unless it is with *him*.

I exist. I will not die except with *him*.

My siblings, my sisters (for we are born spontaneously, now that the laboratory has been destroyed) do not know *why they are*. They wander with the phosphorescences over the eelgrass, they sway with the seaweeds in the depths . . . I cling to stones devoured by moss. It is black and cold. High in the sky, I am immobile and cannot lift my limbs of jade and onyx.

But I am still beautiful. And I love *him*.

V

Marina's wild flight had taken her toward the pools she normally avoided, to the left of the camp. For a moment, she thought she felt an enormous, hostile presence. A monster was at her heels. Reeds crackled in the marsh, and immense jets of water spurted. She would not let herself look back. She ran.

It was when she emerged into the clearing, across from installations, that she saw the ceratosaur.

A walking mountain, preceded by a little head, flat and malevolent, horribly fanged. Marina fired her rifle with trembling hands. A feeble spark sprang out; the charge was exhausted. She screamed.

What occurred then, in the old days, on Earth, would have been called a miracle. The door of the house opened, and Lorris sprang out, armed, clad in his iridescent breastplate. The knight of legend had returned. Leaning against the wall to mask his weakness, he raised the disintegrator to his shoulder and fired.

For a moment, at the edge of the empty clearing, Marina believed that Nyx had shown its power, that time had really turned backward . . . She was saved, Lorris had never been struck by the radioactive discharge, her wonderful, impossible life was about to begin again! But Lorris, having destroyed the ceratosaur, let the weapon fall.

He said, "I'm going to die. Marina. Where is Lumen?"



She had the strength to say, with swollen, icy lips: "Who is that?"

"You know very well. Life. *Our* life — animating that child."

Marina chose her words with cold cruelty, like a little girl who breaks a toy deliberately: "I burned the body she stole. She has no more form. She can't see or hear. Even if you called her, she wouldn't come!"

"Ah," he said, "that's what I wanted to know . . ."

Then he bent his knees and, slowly, like someone who has long ago taken the measure of his death and of the earth where he will sleep, he laid his temple on the sill and stretched out. For a long instant, Marina remained

motionless and mute. The satellites of Nyx, as they set, cast an iridescent light on the pale form, lying across the sill, and suddenly the Terran woman heard a heavy step — a crackling of mimosas and ferns that no ceratosaur could have made.

The purple sun of Spica rose over the horizon, and in its diffuse clarity, Marina, inexorably diminished, saw that enormous thing she could never understand: a stone, a figure of jade — worn, covered with green moss — that emerged from the forest and walked toward the dead man.

That bent its knees and lay down beside him, mouth to mouth, motionless forever. END

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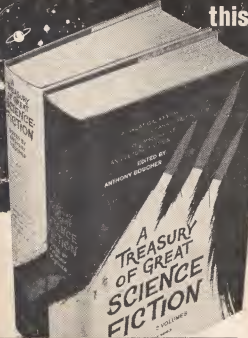
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